MICROBA

April 2022

Precision Microbiome Science

Disclaimer

This presentation (Presentation) has been prepared by Microba Life Sciences Limited (Microba).

Summary information - This Presentation contains summary information about Microba and its activities which is current only as at the date of this Presentation, being 30 March 2022. Microba may in its absolute discretion, but without being under any obligation to do so, update or supplement this Presentation. The information in this Presentation is of a general nature and does not purport to be complete nor does it contain all the information which a prospective investor may require in evaluating a possible investment in Microba or that would be required in a prospectus or other disclosure document prepared in accordance with the requirements of the *Corporations Act* 2001 (Cth) (Corporations Act).

Industry and market data — In this Presentation, Microba refers to certain market, industry, and statistical data used in connection with this Presentation may have been obtained from research, surveys or studies conducted by third parties, including industry or general publications. Neither Microba nor its representatives have independently verified any such data and no representation or warranty, express or implied, is made as to its fairness, accuracy, correctness, completeness or adequacy. Some data is also based on the good faith estimates of Microba, which are derived its reviews of internal sources as well as the independent sources described above.

Not an offer - This Presentation is not a prospectus or other disclosure document under the Corporations Act and will not be lodged with the Australian Securities and Investments Commission. This Presentation is for information purposes only and is not an invitation or offer of securities for subscription, purchase or sale in any jurisdiction. The distribution of this Presentation (including electronically) outside Australia may be restricted by law. If you come into possession of this Presentation, you should observe such restrictions and should seek your own advice. Any non-compliance with these restrictions may contravene applicable securities laws.

Not investment or medical advice - The information contained in this Presentation is not investment, financial product advice, medical advice or any medical recommendation or recommendation to acquire Shares. This Presentation has been prepared without taking into account your investment objectives, financial situation, medical or any other particular needs This Presentation does not and will not form any part of any contract for the acquisition of shares. Each recipient of this Presentation should make its own enquiries and investigations regarding all information in this Presentation. Before making an investment decision, you should consider whether it is a suitable investment for you in light of your own investment objectives, financial situation and particular needs and having regard to the merits or risks involved. Independent financial advice is recommended.

Future performance - This Presentation contains forward looking statements. Forward-looking statements generally relate to current expectations, hopes, beliefs, intentions, strategies or productions about future events or Microba's future financial or operating performance. For example, statements regarding anticipated growth in the industry in which Microba operates and anticipated growth in demand for Microba's products and services, projections of Microba's future financial results and other metrics are forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as "pro forma", "may", "should", "could", "might", "plan", "project", "strive", "budget", "forecast", "expect", "intend", "will", "estimate", "anticipate", "predict", "potential" or "continue", or the negatives of these terms or variations of them or similar terminology, but the absence of these words does not mean that a statement is not forward-looking. Such forward-looking statements are subject to risks, uncertainties, and other factors which could cause actual results to differ materially from those expressed or implied by such forward-looking statements. These forward looking statements are provided as a general guide only and should not be relied upon as an indication or guarantee of future performance and may involve known and unknown risks, uncertainties and other factors, many of which are outside the control of Microba. You are cautioned not to place undue reliance on any forward looking statements in this Presentation are based on assumptions and contingencies which are subject to change without notice. Actual results, performance or achievements may vary materially from any forward looking statements and the assumptions on which statements are based. The forward looking statements in this Presentation available to Microba as at the date of this Presentation and nothing in this Presentation should be regarded as a representation by any person that the forward-looking statements will be achiev

Financial data – All dollar values in Australian dollars (A\$ or \$) unless otherwise stated. Recipients should note that this Presentation contains historical and pro-forma financial information. Any financial information provided in this Presentation is for illustrative purposes only and is not represented as being indicative of Microba's views on its future financial condition and/or performance.

Trademarks – This Presentation may contain trademarks, trade names and copyrights of other companies, which are the property of their respective owners. Solely for convenience, some of the trademarks, trade names and copyrights referred to in this Presentation may be listed without the © or * symbols, but Microba asserts, to the fullest extent under applicable law, the rights of the applicable owners, if any, to these trademarks, trade names and copyright.

Disclaimer - Except for any statutory liability which cannot be excluded, Microba, its related bodies corporate and their respective officers, employees and advisers expressly disclaim all liability (including negligence) for any direct or indirect loss or damage which may be suffered by any person in relation to, and take no responsibility for, any information in this Presentation or any error or omission therefrom, and make no representation or warranty, express or implied, as to the currency, accuracy, reliability or completeness of this Presentation.



Presenters



Dr Luke ReidChief Executive Officer



Prof. Phil HugenholtzCo-Founder and Chair of
Scientific Advisory Board



Prof. Gene Tyson
Co-Founder,
Non-Executive Director



Pasquale Rombola
Chairman

Investment Highlights



World-leading technology in the emerging **US\$4.89 billion**microbiome sector¹



Partnerships with market leaders incl. **SYNLAB** (GR:SYAB), **Illumina** (NASDAQ: ILMN), and **Genova** Diagnostics



Large, unique, proprietary microbiome databank



Lead drug candidate for Inflammatory Bowel Disease

Phase 1b planned for 2022



Cancer program initiated with leading cancer institutes across US and AU

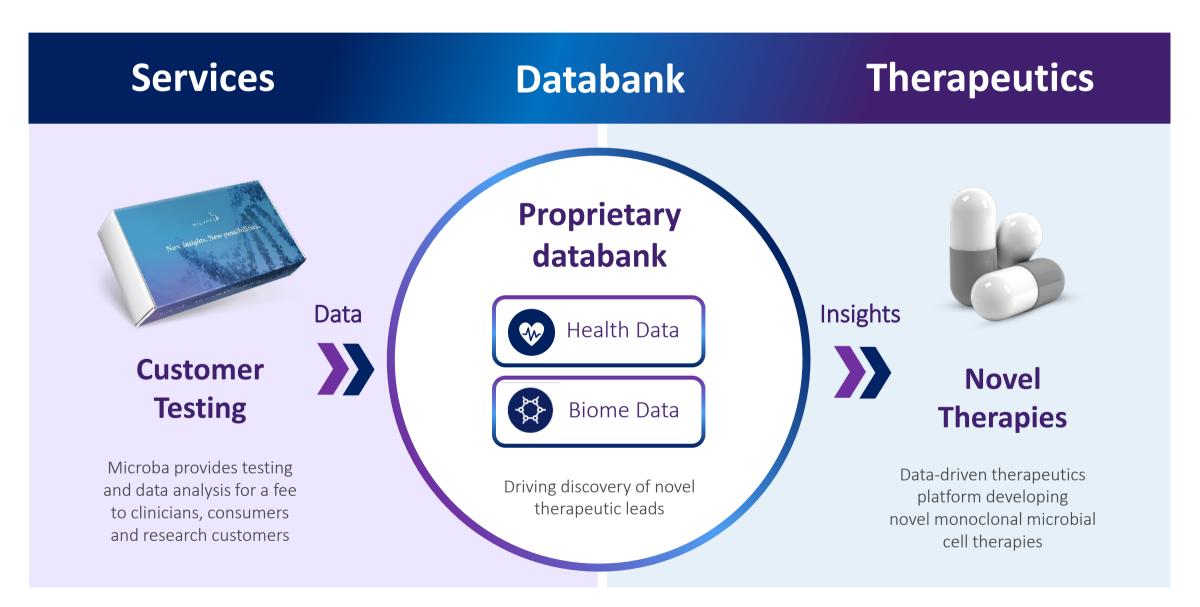


Globally **leading microbiome expertise** complemented by drug
discovery experts including
Prof. Ian Frazer



Microba's Commercial Model

Global testing services build a proprietary databank driving transformative novel therapies





Commercial Model

SERVICES

Global microbiome testing services powered by Microba's world-leading gut microbiome Analysis Platform



Distribution Model

- Partner distribution model scales global access to the company's Analysis Platform
- Enables partners to quickly launch a microbiome test powered by Microba's technology











Distribution Partners

Existing partners include:

- Synlab (EU)
- Genova Diagnostics (US)
- Macrogen (US)
- G42 (Middle East)
- Metagenics (AU & NZ)



Therapeutics

THERAPEUTICS

Developing novel monoclonal microbial cell therapies through Microba's data-driven Therapeutics Platform









- Potent novel drug candidates
- Lead candidate planned for Phase Ib trial in 2022





Princess Alexandra Hospital BRISBANE • ALISTRALIA

Cancer Immunotherapy

- Discovery program initiated
- Large study across
 US and AU together
 with leading
 cancer centres



Autoimmune Disease

 Agreement with Ginkgo Bioworks¹ targeting the development of novel therapies for three autoimmune disorders



Three major agreements recently executed

Three new international agreements accelerating Microba's growth trajectory

Dec 2021



Leading US Gastrointestinal
Pathology Company with laboratory
facilities in North Carolina.

New testing distribution partnership enabling Microba to enter the US healthcare market Feb 2022



Leading Health-Tech Company headquartered in UAE and servicing gulf countries

New testing distribution partnership for consumers and healthcare practitioners.

Jan 2022



NYSE: DNA | Market cap \$5.4B¹

Ginkgo² invested US \$3.5m in Microba IPO.

Drug discovery program with leading synthetic biology company based in Boston & listed on NYSE



Department of Defence Agreement

Soldier Cognitive Performance Program

Therapeutic Discovery Opportunity

- Developing a globally unique dataset on a large cohort of soldiers linking gut microbiome and cognitive performance data
- Targeting the identification of microbial signatures and therapeutic leads to improve soldier cognitive performance
- Therapeutic applications in anxiety and depression

"Our ultimate goal is to develop interventions promoting resilience of the microbiome and preventing cognitive impairment in soldiers"

Distinguished Laureate Professor Nick Talley AC

















() Share 144





Harnessing the unique relationship between the gut and brain, new research will interrogate Australian soldiers' gut microbiome to optimise their cognitive and psychological performance in combat.

The human gut microbiome, which consists of microbes that are both helpful and potentially harmful, is a diverse ecosystem of bacteria, archaea, eukaryotes, fungi, and viruses - intricately linked to cognition, social behaviour, anxiety and stress.



The Australian Government Department of Defence has awarded \$3.5m to an expert interdisciplinary

research collaboration between the University of Newcastle, Hunter Medical Research Institute, Queensland University of Technology, University of Queensland and biotechnology company Microba to perform a comprehensive analysis of soldiers 'cognobiome'.

The unique collaboration, to be led by University of Newcastle researchers, world-renowned neurogastroenterologist, Distinguished Laureate Professor Nick Talley AC and Professor Simon Keely, will partner leading research expertise from a diverse range of disciplines.



Microba Board and Senior Management

World class team with diverse skills across science, medicine and technology commercialisation



Dr Luke ReidChief Executive Officer

Experienced biotech executive; ex-UniQuest one of the global leaders in commercialisation of university technology

Dr Luke Reid is an experienced research and technology commercialisation executive. Previous roles include working with UniQuest, Dupont Pioneer and Novozymes.



Pasquale Rombola Chairman

Experienced executive; ex-Morgan Stanley and Deutsche Bank

Mr Rombola has over 30 years of corporate and financial experience in Australia, Asia and the United Kingdom. Current Non-Executive Director of Audeara Limited (ASX: AUA), and former Chairman and Director of Helix Resources Limited (ASX:HLX).



Prof. Ian FrazerDeputy Chairman and
Chair Medical Advisory Board

Chair Australian Medical Research Advisory Board; Australian of the Year 2006

Professor Frazer is a clinical immunologist and inventor of the Gardasil vaccine, Professor at the University of Queensland and an advisory board member of several other companies and non-profit organisations.



Prof Gene TysonCo-Founder,
Non-Executive Director

Professor of Microbial Genomics at The Queensland University of Technology

Professor Tyson is considered a world- leading expert in microbial analysis with previous tenure at UC Berkeley, MIT and UQ. He published the first paper to use metagenomics for profiling microbial communities.



Prof. Phil HugenholtzCo-Founder, Chair of
Scientific Advisory Board

Director of the Australian Centre for Ecogenomics; former Director of the Microbial Ecology and Metagenomic Programs

at the Joint Genome Institute (JGI)

Professor Hugenholtz has made landmark contributions to the understanding of uncultured microbial diversity, and led the development of new tools and standards in the field.



Assoc. Prof. Lutz KrauseChief Scientific Officer



Dr Caroline PopperNon-Executive
Director



Dr Jakob Begun Medical Advisory Board, Chair - IBD Advisory Panel



Dr Nicola AngelLaboratory Director



John CullityCommercial Advisor



Holly Bauzon
Vice President, Commercial
Development



Mark Parker
Global Business
Development



















Opportunity Overview

Resolving chronic disease with Precision Microbiome Science

World-leading microbiome analysis technology unlocks routine testing and microbiome therapies

up to **95%** coverage¹

up to **34x** more accurate²



MICROBA

Published in

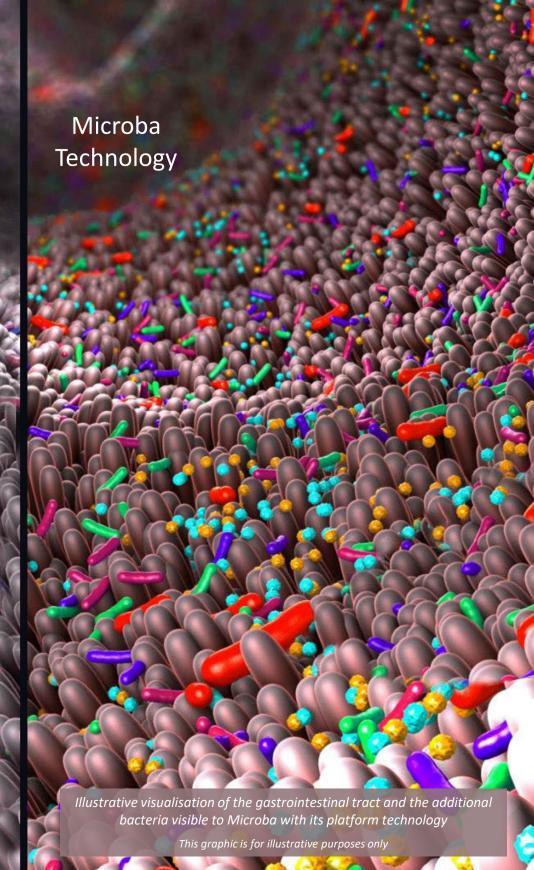
frontiers
in Microbiology



² Microba achieves 6-34x lower false discovery rate than academic competitors Parks, Donovan H., et al. "Evaluation of the Microba Community Profiler for Taxonomic Profiling of Metagenomic Datasets From the Human Gut Microbiome." *Frontiers in microbiology* 12 (2021).

Other

Technology



The gut microbiome plays a key role in health & disease

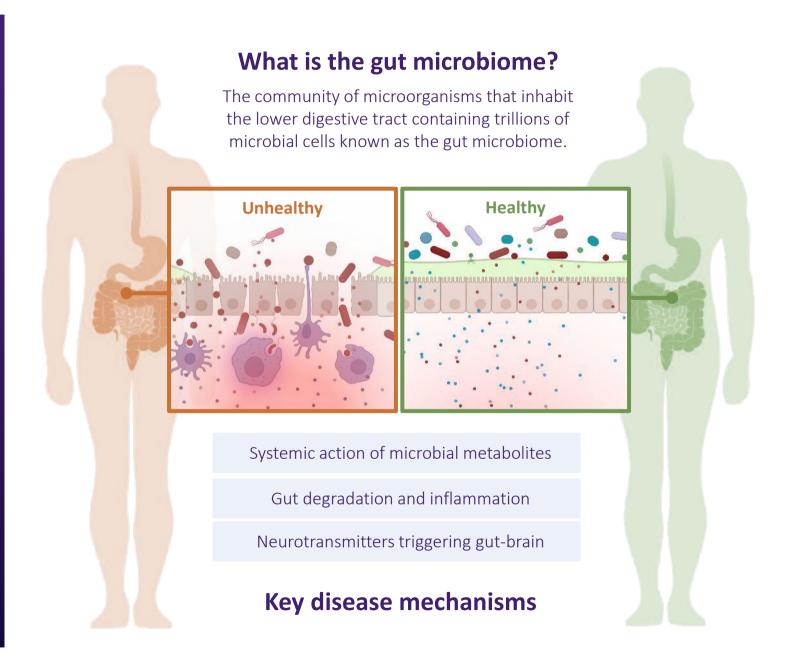
Modifying the gut microbiome; a key missing piece to resolving chronic disease

6 in 10

People in the US have a chronic disease¹

>100

Clinical studies demonstrating that microbiome modulation can improve health outcomes related to chronic disease²



Microbiome science is changing medicine and will transform chronic disease management



Microbiome therapy to treat chronic diseases

Microbiome modulating primary and adjuvant therapies are currently being developed to address autoimmune, inflammatory, metabolic, mental health disorders and cancer immunotherapy



Microbiome testing to match patients with the right treatment

Microbiome biomarkers and signatures are being developed for diagnosis, screening, drug response assessment and health risk monitoring.

Microba with its world leading technology operates in the emerging US \$4.89 billion microbiome sector¹ which is impacting the large chronic disease management market²



Microbiome Services Driving global revenues and data growth

Services Overview

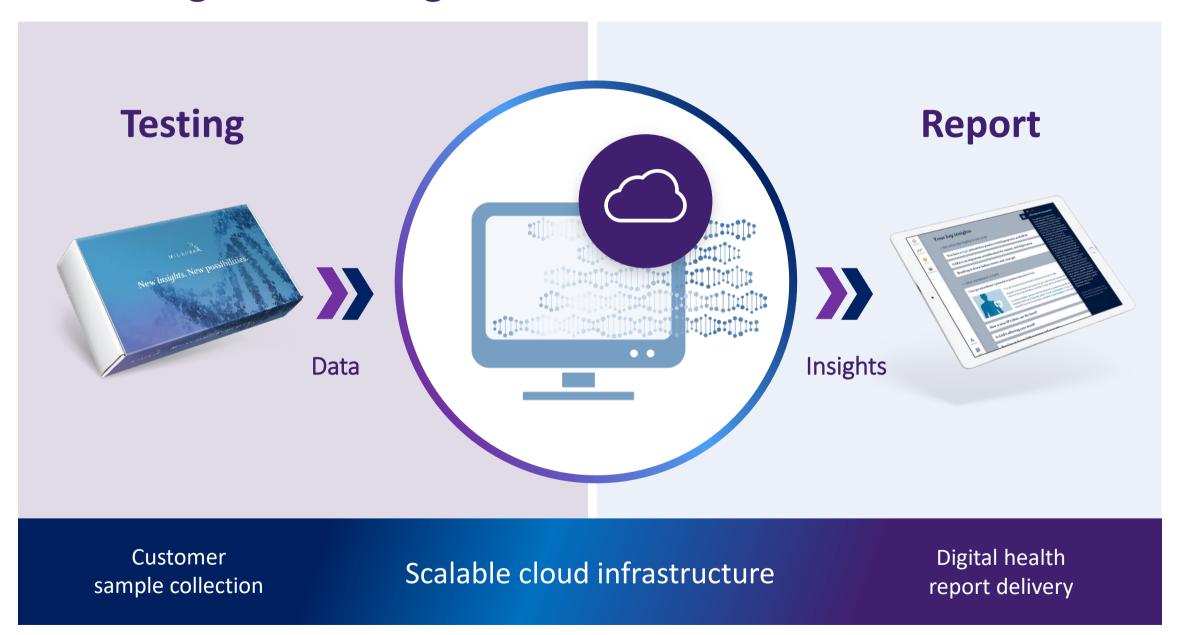
• Powered by Microba's leading microbiome Analysis Platform.

- **Distribution partners in US, EU & AU** offer a microbiome test to their existing customer base with Microba technology.
- Key distribution partners established including Synlab (EU), Genova Diagnostics (US), Psomagen (US), Metagenics (AU & NZ) and G42 (Middle East).
- Microba's services are trusted by large multinationals including Unilever, Illumina and other top pharma and nutrition companies.
- Global services revenue continue to grow as new distribution partners launch



Partner distribution model

Scalable global testing services



Genova Diagnostics US Distribution Partnership

Driving US expansion and revenue growth

- Signed Dec 2021
- ➤ Launch a Microba powered test to a base of 10,000 healthcare providers
- World class metagenomic lab facility to be established in North Carolina



- Founded in 1986
- Headquartered in North Carolina
- Leading gastrointestinal pathology company in the US
- Genova provides GI testing solutions across all 50 states in the US.
- Developed the most popular existing comprehensive gastrointestinal test for healthcare providers



G42 Middle East Distribution Partnership

International expansion and revenue growth



- Headquartered in Abu Dhabi, UAE
- Leading health-tech company
- Recently raised US \$800m led by Silver Lake
- The region's largest and most technologically advanced multi-omics facility
- Leading the Emirati Genome Program and major partners including AstraZeneca

- Signed Feb 2022
- Launch a Microba powered test to consumers and healthcare practitioners
- > Sell and promote Microba powered test across Gulf Cooperation Council (GCC)

Global distribution partners

Distribution agreements executed with global market leaders to distribute microbiome testing solutions powered by Microba's world leading Analysis Platform technology.





AU & NZ

- Metagenics is a leader in functional nutrition
- Large allied health clinician customer base
- In 2019, the Company finalised a distribution partnership for AU & NZ





US

- Macrogen is a leading company in precision medicine and biotechnology
- Psomagen is Macrogen's US associated entity
- In 2019 the Company signed a distribution partnership for the US consumer market





Europe

- Europe's largest pathology company
- Presence in over 40 countries
- Manage 500m tests a year for 10m patients
- Expansion initiated into 7 additional countries in 2021





US

- Leading GI pathology company
- >10,000 purchasing clinicians
- In Dec 2021 the Company signed a distribution partnership for the US healthcare market





Middle East

- Leading health-tech company
- Harnessing data and advanced technologies to unlock personalised and preventive care
- In Feb 2022 the Company signed a distribution partnership for the GCC region



TO BE ANNOUNCED

AU

 Fast growth innovative consumer healthcare company

Launched Mid 2019

Launched Late 2019

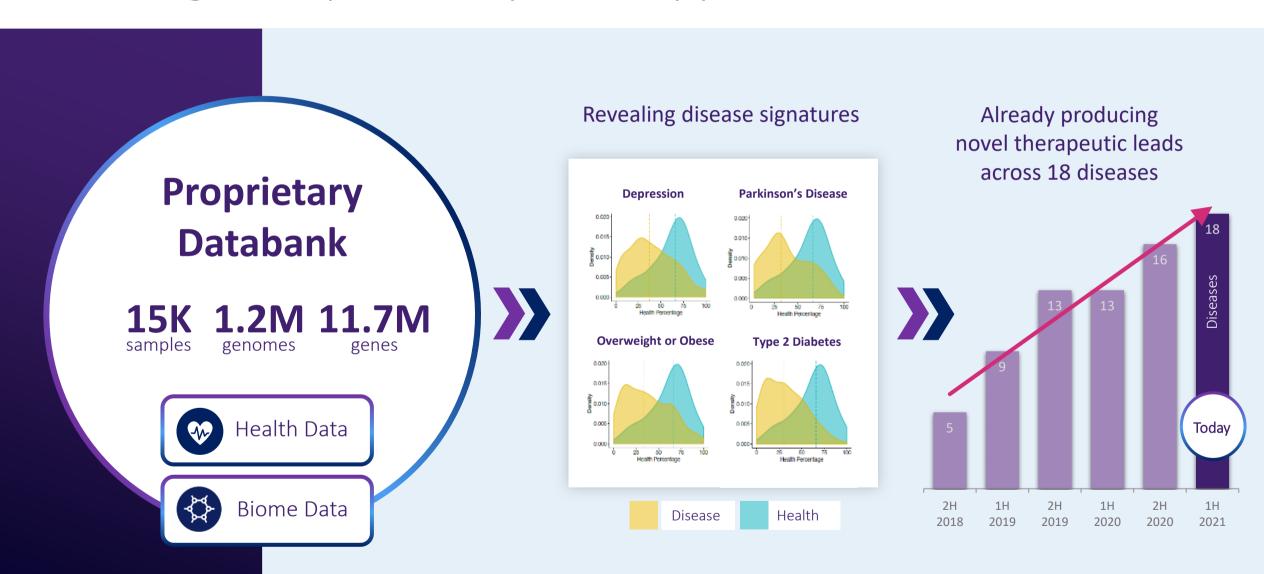
Launched Mid 2021

Planned Launch Mid 2022 Planned Launch Early 2022 Planned Launch Mid 2022

Microbiome Databank Driving therapeutic discovery

Large, unique, proprietary databank

driving multiple therapeutic opportunities





Microbiome Therapeutics Developing novel monoclonal microbial cell therapies

Therapeutics Overview

- Strategy is to leverage our proprietary databank to develop multiple therapeutic opportunities and partner with large pharma companies
- **Human first, data-driven** approach to drug discovery is highly sought after by pharmaceutical companies.
- Flagship program is in Inflammatory Bowel Disease (IBD) which affects 6.8m people globally¹.
- Program has progressed well with preclinical data showing excellent results in animal models of disease.
- Cancer program initiated with leading cancer institutes across US and AU
- Autoimmune program initiated together with Ginkgo Bioworks (NYSE: DNA)²
- Excellent deal precedents Gilead entered into \$1.5bn partnership with Second Genome³.

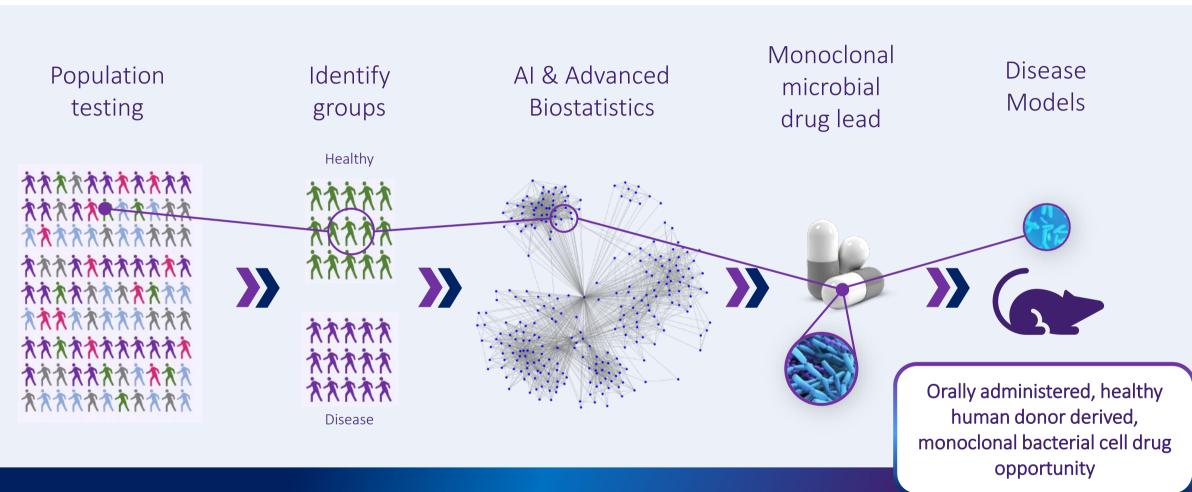




¹ Jairath, Vipul, and Brian G. Feagan. "Global burden of inflammatory bowel disease." The Lancet Gastroenterology & Hepatology 5.1 (2020): 2-3.

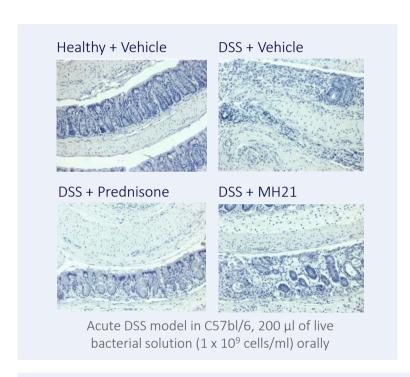
² Legal agreement between parties has been entered into by wholly owned subsidiaries of Ginkgo Bioworks Holdings, Inc. (NYSE: DNA) and Microba Life Sciences Ltd respectively. Such agreement commences on the date of issuance of shares of Microba to Ginkgo upon the completion of Microba's Initial Public Offering.

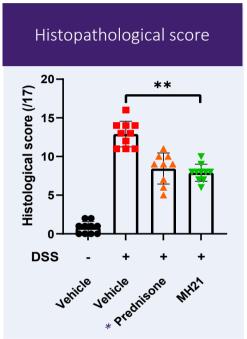
Repeatable, scalable, data-driven platform discovering novel monoclonal microbial cell therapies

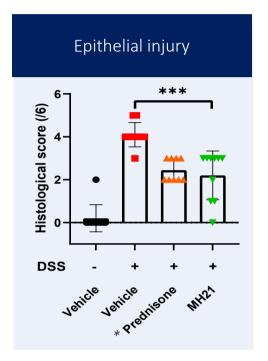


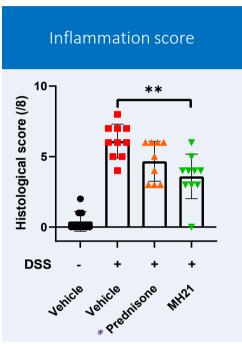
Proprietary microbiome databank driving multiple therapeutic opportunities through a capital light platform

Inflammatory Bowel Disease program delivering potent orally delivered monoclonal microbial cell therapy









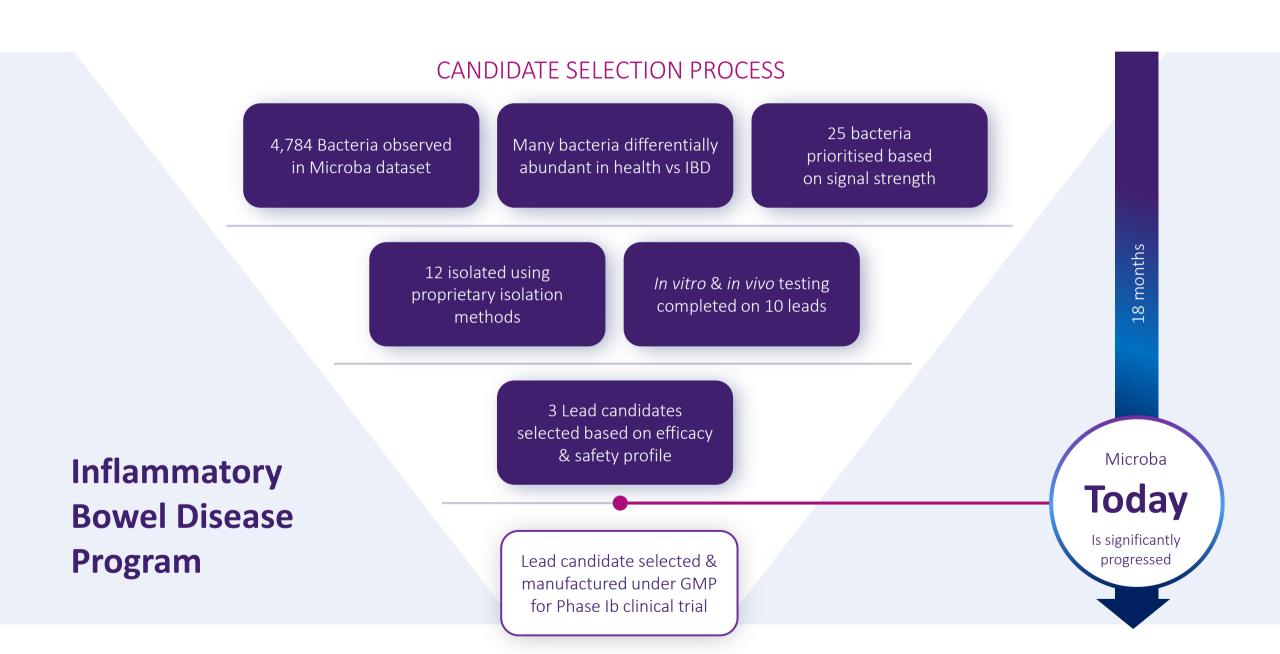
- MH21 stimulates epithelial restitution and mucosal healing, a key gap in existing therapy
- Lead candidate in manufacturing for a Phase 1b trial in patients with mild to moderate Ulcerative Colitis

2020 sales of leading immuno-modulatory drugs used to treat IBD:

<u>HUMIRA \$20.4B</u>¹ | <u>REMICADE \$4.2B</u>²



Repeatable human first, data-driven therapeutic platform Demonstrating rapid translation from data to first in human



Cancer program

Developing a microbiome-derived cancer immunotherapy

Developing breakthrough microbiomederived cancer immunotherapy together with leading Cancer Centers across US and AU.

 Between <u>42% - 70%</u> of patients do not respond to ICI therapy^{1,2} **Development partners**





Princess Alexandra
Hospital
BRISBANE • AUSTRALIA

- Modulation of the gut microbiome using **fecal microbiome transplant improved ICI response** in Phase I and II studies^{3,4}
- Over 30 published studies support the influence of the gut microbiome on ICI response
- Targeting the discovery and development of an effective microbiome-derived adjuvant therapy to increase ICI response rate



GINKGO BIOWORKS

Autoimmune Drug Discovery Program



NYSE: DNA | Market cap \$5.4B* | Boston HQ

- Boston based, NYSE listed.
- Leader in Synthetic Biology Field.
- Key shareholders include Cascade Investments (Bill Gates), Viking Global Investors & Baillie Gifford & Co.
- Supported process optimisation in the manufacturing of mRNA vaccines for COVID-19.
- Partners include Roche, Moderna & Bayer.
- Experts in computational biology, organism engineering, automation & optimisation.
- Two key capabilities are Ginkgo Foundry & Ginkgo Codebase.

"Synthetic biology will transform how we grow food, what we eat, and where we source materials and medicines."

Nature Communications, 2020

"Ginkgo will organize the world's biological code and make it useful."

GINKGO HEAD OF CODEBASE. PATRICK BOYLE

We can program cells (<u>DNA</u>) like we program computers (<u>code</u>)

GINKGO BIOWORKS

Autoimmune Drug Discovery Program

Investment

- Ginkgo invested US \$3.5m into Microba's IPO*
- Ginkgo will become a ~4% shareholder of Microba.

Drug Discovery

- Microba & Ginkgo will leverage existing Ginkgo synthetic biology capabilities and Microba's data driven drug discovery pipeline for the purpose of identifying drug candidates for:
 - Psoriatic Arthritis
 - Autoimmune Liver Disease
 - Lupus
- The 24 month program will leverage Ginkgo foundry and codebase capability including novel approaches to complete large scale characterisation of Microba's unique data-driven microbial biobank.
- Both parties are contributing intellectual property to the program. Following the completion of the program, the parties will jointly share in the successful product commercialisation income.
- The program has a cost of US \$7m which can be paid for by Microba in a mix of cash and equity over two years. This is a unique marriage of highly synergistic capabilities.

























Therapeutic pipeline

Repeatable, capital light therapeutic platform

Inflammatory Bowel Disease

- US \$19.2B market size with 4.8% CAGR¹
- Microba candidates addressing key gap in current therapy
- Strong deal precedents

Development UNIVERSITY OF MIAMI partners







Cancer **Immunotherapy**

- Between 42% 70% of patients do not respond to ICI therapy^{2,3}
- Market is expected to be worth >50B by 20254
- Targeting microbiome adjuvant therapy to improve ICI response

Development MOFFITT M partners





Autoimmune Disease

- US \$53B market size with 11.2% CAGR⁵
- Targeting the development of novel microbiome-based therapies for 3 autoimmune disorders

Development partners



Additional program opportunities

Inflammatory & autoimmune

- Allergy
- Rheumatoid Arthritis

Cardiometabolic

- Diabetes
- Non-alcoholic fatty liver disease

Mental health conditions

- Anxiety & Depression
- Alzheimer's



⁴ https://www.alliedmarketresearch.com/immune-check-point-inhibitors-market

Growth sector with big pharma engaged



US \$1.5B transaction



Agreement to identify biomarkers associated with Gilead compounds for multiple diseases, and to identify new targets and drug candidates inflammatory bowel disease.¹



US \$534M transaction



Agreement to discover biomarker signatures of drug response, new live bacterial therapeutics and novel targets for inflammatory bowel disease.²



US \$1.9B transaction



Agreement to commercialise
Seres novel therapeutic assets in
the fields of Clostridium difficile
infections and Inflammatory
Bowel Disease.³



² https://www.fiercebiotech.com/biotech/genentech-signs-534m-deal-microbiotica-search-gut-bacteria-for-ibd-targets-new-drugs

³ https://www.reuters.com/article/us-nestle-seres-deals-idUSKCN0UP1VP20160111

Summary

- Building the leading microbiome testing company
 Globally scalable distribution partner model with strong growth prospects post COVID
- Large, unique, proprietary databank
 Driving multiple therapeutic opportunities
- Repeatable, scalable drug development platform
 Generating high-value, potent drug candidates with strong deal precedents
- Microbiome segment rapidly growing and attracting multinational investment
 - Strong technology platform positions Microba for a dominant market position

Additional information & Risks

Income Statement

Commentary

- Healthy and scalable gross margin.
- YoY growth consistently achieved with additional growth expected from newly signed distribution partnerships.
- Growth has been restricted over past 18 months due to COVID-19.
- Grant income includes R&D Tax Incentive received for eligible therapeutic program activities.

	FY20 (Actual) ('000)	FY21 (Actual) ('000)	H1 FY21 (Actual) ('000)	H1 FY22 (Actual) ('000)
For the financial years ending 30 June				
Revenue	2,909	3,732	1,693	2,199
Cost of sales	(1,723)	(1,668)	(797)	(1,026)
Gross Profit	1,186	2,064	896	1,173
Gross Margin %	41%	55%	53%	53%
Grant income	749	1,968	1,929	1,605
	1,935	4,032	2,825	2,778
Employee benefits expense	(4,148)	(6,151)	(2,578)	(3,906)
Consulting fees	(1,103)	(662)	(246)	(305
Data processing and storage expense	(496)	(556)	(287)	(222
Research and development expense	(163)	(1,539)	(457)	(2,596
Other operating expenses	(1,655)	(1,508)	(857)	(1,097
Total Operating Expenses	(7,565)	(10,416)	(4,425)	(8,126
EBITDA	(5,630)	(6,384)	(1,600)	(5,348
Less: Depreciation & Amortisation	(1,091)	(1,218)	(617)	(685
EBIT	(6,721)	(7,602)	(2,217)	(6,033
Interest income	102	102	51	3
Interest expense	(37)	(23)	(16)	(27
Net Profit Before Tax	(6,656)	(7,523)	(2,182)	(6,029



Proforma Balance Sheet – December 31 (H1 FY22)

Commentary

Strong Balance Sheet with minimal debt and a healthy cash position, which positions Microba to capitalise on existing market opportunities.

Cash

- \$37m cash at bank post IPO
- Microba has raised \$30m through IPO.
- Microba net cash burn is ~\$1m per month which reflects investment in global revenue growth and therapeutic development.

CAPEX

- Microba owns all major items of laboratory equipment required to deliver its ordinary business activities.
- Limited CAPEX required to scale up.

	Pro Forma Balance Sheet
For the period ended 31 December 2021	\$'000
Cash & cash equivalents	32,666
Financial assets (at amortised cost) ¹	5,027
Receivables	2,233
Inventory	435
Fixed assets (net of accumulated depreciation)	832
Right of use assets (net of accumulated depreciation)	960
Intangible assets (net of accumulated amortisation)	958
Other assets	583
Total Assets	43,694
Payables	2,963
Current Liabilities	2.063
Deferred revenue	959
Borrowings	38
Lease liabilities	366
Other current liabilities	469
Current Liabilities	4,795
Lease liabilities	670
Other	170
	840
Non-Current Liabilities	5,635
Non-Current Liabilities Total Liabilities	3,033

into an agreement with Ginkgo Bioworks to settle future contract milestones



Proforma Cash Flow Statement

Commentary

- Strong cash receipts collections from customers.
- Access to R&D Tax Incentive to rebate up to 43.5% of eligible R&D activities.
- Limited investment required in CAPEX to scale operations and R&D activities.
- Limited borrowings remaining, debt free by 30 June 2022.

	FY20 (Pro Forma) ('000)	FY21 (Pro Forma) ('000)	H1 FY21 (Pro Forma) ('000)	H1 FY22 (Pro Forma) ('000)
For the financial years ending 30 June				
Receipts from customers	3,922	3,091	1,172	1,925
Payments to suppliers and employees	(8,785)	(11,961)	(4,805)	(6,774)
Subsidies and grants received	453	890	893	1,534
Interest and other finance costs paid	(37)	(23)	(16)	(27)
Interest received	68	135	84	31
Net cash flows from operating activities	(4,379)	(7,868)	(2,672)	(3,311)
Proceeds from sale of fixed assets	-	-	-	9
Payments for property, plant and equipment	(361)	(247)	(84)	(54)
Payments for intangible assets	(495)	(425)	(219)	(119)
Proceeds from/(payments for) term deposits	14	-	-	(204)
Subsidies and grants received	150	190	190	95
Net cash flows from investing activities	(692)	(482)	(113)	(273)
Repayment of borrowings	(125)	(141)	(70)	(71)
Principal portion of lease payments	(207)	(217)	(93)	(103)
Proceeds from issue of shares	1,400	15,145	8,500	1,250
Share issue transaction costs	-	(951)	(537)	-
Net cash flows from financing activities	1,068	13,836	7,800	1,076
Net increase/(decrease) in cash held	(4,003)	5,486	5,015	(2,508)



Risks

Introduction

The business, assets and operations of Microba are subject to certain risk factors that have the potential to influence operating and financial performance in the future. These risks can impact on the value of an investment in Microba. The Board aims to manage these risks by carefully planning its activities and implementing mitigating risk control measures. Some risks are unforeseen and so the extent to which these risks can be effectively managed is somewhat limited. Set out below are specific key risks to which the Company is exposed.

Early stage risk

Given Microba only recently commenced commercial operations, there are uncertainties surrounding the rate of growth and prospects of Microba. Further, Microba has operated at a loss since inception in January 2017. In the financial years ending 30 June 2018, 30 June 2019, 30 June 2020 and 30 June 2021, Microba had net losses of \$0.78m, \$4.73m, \$6.65m and \$7.52m respectively. In the half year ended 31 December 2021, Microba had a net loss of \$6.03m.

Microba is subject to risks common to early stage companies, including increasing market share and brand recognition, developing its product pipeline, competition risk and satisfying regulatory requirements imposed on Microba and its products. If Microba is not successful in addressing such risks, the Company's business prospects and financial performance may be materially and adversely affected and the Company may never become profitable.

Uncertainty of future revenue and profitability

Future sales of products including but not limited to Microba Insight™ (including any white-labelled versions or products derived from it) and Microba's future profitability are contingent on, amongst other things, Microba's ability to enter into appropriate distribution and partner arrangements, being able to maintain anticipated prices for products being acquired as well as certainty of supply, being able to set favourable prices for products being sold, market demand for products being sold, general economic conditions, the results of further research and clinical trials in relation to microbial genomics. Consequently, Microba cannot provide any guarantee that future sales estimates will be achieved. Even if future sales estimates are achieved, they may not result in Microba being profitable.

Loss of adoption by customers

Microba is reliant on consumers and healthcare practitioners recommending and purchasing its products. Healthcare practitioners play a significant role in influencing the types of tests and products used by patients, in addition to being purchasers themselves. To achieve commercial success, Microba is reliant on healthcare practitioners accepting the scientific validity and usefulness of its current and planned testing products. Healthcare practitioners may be slow to adopt and recommend Microba products to their patients for a number of reasons. While Microba has strong relationships with healthcare practitioners, various distribution partnerships and a course designed to help healthcare practitioners better understand Microba's products, these do not guarantee sufficient adoption of Microba's products domestically and in international markets necessary to achieve profitability.

Loss of key distribution and partner relationships or inability to enter into such relationships

Microba has a number of distribution and partnership arrangements in place. There can be no guarantee that the relationships with any partner or distributor will continue or if they do continue, that they will continue to be successful for Microba.

Loss of key management personnel

The successful operation of Microba in part relies on Microba's ability to attract and retain experienced and high performing key management personnel, in particular those with relevant scientific expertise. The loss of any key members of management or other personnel, or the inability to attract additional skilled individuals to key management roles, may adversely affect Microba's ability to develop and implement its business strategies.



Risks

Access to sequencing technology, sufficient commercial manufacturing capability, and cloud infrastructure

Microba's testing services (including Microba Insight[™] and MetaBiome) are dependent on:

- uninterrupted operation of the sequencing machine provided and maintained by Illumina Inc;
- manufacture and provision to the Company of testing swabs by COPAN;
- costs of the items detailed above being appropriate; and
- uninterrupted operation of cloud data storage and computing infrastructure such as Google Cloud Platform.

Failures in respect of any of the above could adversely impact the Company's supply chain or cost of goods sold and require the Company to source and engage new providers for the above goods and services.

Ownership and protection of intellectual property

The business of Microba depends on its ability to commercially exploit its intellectual property. Microba relies on laws relating to patents, trade secret, copyright and trade marks to assist in protecting its proprietary rights. There is a risk that unauthorised use or copying of the secure documentation (electronic laboratory books), business data or intellectual property will occur. There is a risk that Microba may be unable to detect the unauthorised use of its intellectual property rights in all instances. Any breaches of Microba's intellectual property may result in the need to commence legal action, which could be costly and time consuming. A failure or inability to protect Microba's intellectual property rights could have an adverse impact on operating and financial performance.

Failure to realise benefits from product research and development

The development and commercialisation of the Company's Services, Databank and Therapeutics are expensive and often involve an extended period of time to achieve return on investment. An important aspect of Microba's business is to continually invest in innovation and product development opportunities. Microba may not realise benefits from these investments for several years, or may not realise benefits at all in some cases. Microba makes assumptions about the expected future benefits generated by investment in product research and development and the expected timeframe in which the benefits will be realised. These assumptions are subject to change and involve both known risks and risks that are beyond Microba's control. Any change to the assumptions Microba has made about certain product development may have an adverse impact on Microba's ability to realise benefit from investment in the development of that product.

Market acceptance and competitor risk

Market acceptance depends on numerous factors, including convincing potential consumers and agents of the attractiveness of Microba's products and the ability to manufacture those products to a sufficient quality and quantity to meet commercial demand at an acceptable cost. There is a risk that Microba's products may not gain widespread market acceptance, and this may adversely affect the financial performance of Microba. There is also a risk that Microba may not be able to effectively compete with other participants in this market.

General regulatory risks

The Company operates and intends to operate in regulated industries (including but not limited to medical devices, diagnostics and therapeutics) in Australia and internationally. Given Microba's international expansion plans, securing and maintaining the necessary regulatory approvals for its products and services in all markets in which they are sold and offered respectively will be critical to the performance of Microba.

There is a risk that regulatory approvals for Microba's products and services will fail to be obtained or maintained in some or all of the markets in which they are sold and offered respectively. This may have an impact on the financial performance of Microba and expose it to potential liabilities or third-party claims. Further, the failure by Microba to comply with the laws and regulations in the jurisdictions in which it operates could result in the loss of access to those and other markets. In addition, compliance with government regulations may also subject Microba to additional fees and costs. Further, changes to these laws and regulations (including interpretation and enforcement), or the failure by Microba to remain current with those changes, could adversely affect Microba's business and financial performance.



Risks

Liquidity and realisation risk

Restriction obligations (escrow) have been applied to a number of Shares held by existing Shareholders. The remaining "free float" (shares that are tradable during any restriction period) may be limited, resulting in a decrease in active or potential sellers or buyers at any given time, which may result in an inactive or illiquid market for the Company's Shares, which may increase the volatility of the market price of the Company's Shares. There is a risk that once the Shares subject to escrow or trading restrictions are released from the restrictions attaching to them, there may be significant sell down by holders of those Shares which may negatively affect the Company's Share price. The potential limited free float (tradeable Shares during any restriction period) and potential sell down may affect the prevailing market price at which Shareholders are able to sell their Shares. There can be no guarantee that an active market in the Shares will develop or that the price of the Shares will increase. There may be relatively few potential buyers or sellers at any given time and this may increase the volatility of the market price of Shares.

COVID-19 risk

The Microba Group may face additional difficulty in achieving business growth, as well as creating and maintaining a competitive advantage over other competitors during the COVID 19 pandemic. COVID 19 may create business risks for the Microba Group in reducing consumer demand for the Microba Group products, delaying supply and distribution timeframes and increasing the cost of supply. Further, COVID19 may create changed global economic conditions which may prevent or delay the Microba Group's successful expansion. COVID19 may also affect Microba personnel as Microba will be required to adhere to health recommendations from local, state and federal authorities, which may include reductions in available employees, lower production and revenue, and increased costs or reduced profitability

Sufficiency of funding and additional requirements for capital

Microba has provided an indication of how it intends to apply its existing funds in its prospectus, There is a risk that the costs of operations may be higher than anticipated or increase as a result of unforeseen circumstances (which may include circumstances related to other key risk factors). Microba may also be required to raise additional equity or debt capital in the future. There is no assurance that Microba will be able to raise that capital when it is required or that it will be able to raise that capital on such terms satisfactory or favourable to the Company.



Contact

Dr Luke Reid

Chief Executive Officer luke.reid@microba.com

Simon Hinsley

Investor / Media Relations simon@nwrcommunicatons.com.au

Head Office

Level 10, 324 Queen Street Brisbane QLD Australia

Laboratory

Princess Alexandra Hospital Woolloongabba QLD Australia



Appendix

Board of Directors



Pasquale Rombola Chairman Non-Executive Director

Mr Rombola has over 30 years of corporate and financial experience in Australia, Asia and the United Kingdom. He spent 19 years in senior positions with Morgan Stanley and Deutsche Bank, including 7 years in the role of Managing Director. Mr Rombola is a current Non-Executive Director of Audeara Limited, a leading hearing health company (ASX: AUA), he is the Chairman of Advantage Agriculture Pty Ltd a private agribusiness company. He was also formerly the Chairman and Director of Helix Resources Limited (HLX).

Mr Rombola holds a Bachelor of Economics from the University of Western Australia.



Prof. lan FrazerDeputy Chairman and
Chair Medical Advisory Board

Professor Frazer is a clinician scientist, trained as a clinical immunologist. He is a Professor at the University of Queensland and is the current Chairman of the Australian Medical Research Advisory Board (AMRAB) which advises the Minister for Health on prioritising spending from the Medical Research Future Fund (MRFF). He is recognised as coinventor of the technology enabling Gardasil - the leading vaccine currently used worldwide to help prevent cervical cancer.

Professor Frazer holds a
Doctor of Medicine from the
University of Melbourne and the
following degrees from the
University of Edinburgh: Bachelor
of Medicine, Bachelor of Surgery
and Bachelor of Science (Hons).



Dr Caroline PopperNon-Executive
Director

Dr Popper is a US-based pathologist and business consultant with more than 20 vears' experience in the international diagnostics, medical devices and drug discovery fields, including 10 vears in senior management and marketing roles at the leading medical technology firm, Becton Dickson & Company. Dr Popper has served in senior managerial and advisory positions at a variety of Fortune 500 and start-up companies, including bioMerieux and MDS Proteomics.

She holds a Bachelor of Medicine from the University of the Witwatersrand, Johannesburg; Master of Public Health – Health Policy and Health Economics from Johns Hopkins University, Baltimore.



Prof Gene TysonCo-Founder,
Non-Executive Director

Professor Tyson is a Professor of Microbial Genomics at The Queensland University of Technology and is the Director of the Centre for Microbiome Research.

Whilst at the University of California, Berkeley he was involved in publishing the first paper regarding the use of metagenomic sequencing for assessing microbial communities. Professor Tyson is also considered a world-leading expert in microbial analysis.

Professor Tyson holds a Bachelor Science (Hons) from the University of Queensland and a PhD from the University of California, Berkeley.



Dr Hyungtae Kim Non-Executive Director

Dr Hyungtae Kim is an internationally experienced leader in the genomics field having held the positions of Chief Executive Officer of Macrogen Inc (Macrogen) from 2008 to 2014 and Chief Executive Officer, Macrogen Europe from 2015 to 2017.

Dr Kim is a Director of Macrogen Inc, a company listed on the KOSDAQ in South Korea.

Dr Kim is also a Director of the Gongwu Genome Information Foundation.

Dr Kim holds a PhD in molecular biology from George Washington University in Washington DC, USA.



Richard BundNon-Executive Director

Mr Bund is a Chartered Accountant and Director of Equipe Advisory Accounting firm. Mr Bund has more than 20 years experience in accounting and corporate finance and is the director of several private Australian companies.

Mr Bund is a Member of Chartered Accountants
Australia and New Zealand. He holds a Bachelor of Commerce (Accounting) from the University of Adelaide and a Graduate Diploma in Chartered Accounting from Chartered Accountants
Australia and New Zealand.

Medical Advisory Board



Prof. Ian FrazerDeputy Chairman and
Chair Medical Advisory Board,
Clinical Immunologist

Professor Frazer is a clinician scientist, trained as a clinical immunologist. He is a Professor at the University of Queensland and is the current Chairman of the Australian Medical Research Advisory Board (AMRAB) which advises the Minister for Health on prioritising spending from the Medical Research Future Fund (MRFF). He is recognised as coinventor of the technology enabling Gardasil - the leading vaccine currently used worldwide to help prevent cervical cancer.

Professor Frazer holds a
Doctor of Medicine from the
University of Melbourne and the
following degrees from the
University of Edinburgh:
Bachelor of Medicine, Bachelor
of Surgery and Bachelor of
Science (Hons).



Dr Jakob Begun Medical Advisory Board, Chair IBD Advisory Panel, Gastroenterologist

Dr Jakob Begun is a Practising Clinical Gastroenterologist and Senior Research Fellow in the Immunity, Infection, and Inflammation Program at Mater Research, The University of Queensland.

He established an IBD centre at Queen Elizabeth II Hospital and an adolescent and young adult IBD centre at the Mater Hospital in Brisbane. Dr Begun is a senior lecturer at The University of Queensland School of Medicine and has a basic and translational laboratory at the Translational Research Institute. He maintains active collaborations with researchers at Harvard University and has formed new collaborations with researchers across Australia through his role as Chair of the Australia and New Zealand IBD Consortium.



Dr Paul GriffinMedical Advisory Board,
Infectious Disease Physician

Dr Paul Griffin is an Infectious
Diseases Physician and
microbiologist and was appointed
as the Director of Infectious
Diseases at Mater Health Services
in 2013. In addition, Dr Griffin
continues appointments as
Principal Investigator at Q-Pharm,
as Visiting Scientist/Honorary
Research Fellow at Mater
Medical Research Institute and
Queensland Institute of Medical
Research, and also as Senior
Lecturer at The University
of Queensland.

His research interests include clinical trials in the field of infectious diseases particularly malaria human challenge and transmission blocking studies, as well as the detection of antibiotic resistance particularly VRE by mass spectrometry in the clinical microbiology laboratory.



Dr Chris HoganMedical Advisory Board,
General Practitioner

Professor Tyson is a Professor of Microbial Genomics at The Queensland University of Technology and is the Director of the Centre for Microbiome Research.

Whilst at the University of California, Berkeley he was involved in publishing the first paper regarding the use of metagenomic sequencing for assessing microbial communities. Professor Tyson is also considered a world-leading expert in microbial analysis.

Professor Tyson holds a Bachelor Science (Hons) from the University of Queensland and a PhD from the University of California, Berkeley.



Prof Maria AbreuIBD Advisory Panel Member,
Gastroenterologist

Crohn's and colitis physicianscientist. Director of Crohn's & Colitis Center, Professor of Medicine, Professor of Microbiology and Immunology, University of Miami, Miller School of Medicine, Florida, US.





Prof Jean-Frederic ColombelIBD Advisory Panel Member,
Gastroenterologist

Professor of Medicine at Icahn School of Medicine at Mount Sinai.

Former President of European Crohns & Colitis Organisation (ECCO).

Chair of the International Organisation of Inflammatory Bowel Disease (IOIBD).





Executive Summary

Overview

- Company formed in 2017 to acquire co-founder developed IP from the University of Queensland
- 20,000+ microbiome test reports sold to date
- Global partnerships established with multinational companies
- Team includes global experts in drug discovery and technology commercialisation
- Large proprietary databank drives the discovery of multiple therapeutic assets
- Lead drug candidate for Inflammatory Bowel Disease entering Phase Ib trial in 2022
- Headquartered in Brisbane, Australia. Now 55 FTEs including 25 PhDs based across AUS and USA

Market

Microba with it's world leading technology operates in the emerging US\$4.89 billion microbiome sector¹ which is impacting the large chronic disease management market²

Commercial Model

SERVICES

Global microbiome testing services powered by Microba's world-leading gut microbiome Analysis Platform

Distribution Model

- Partner distribution model scales global access to the company's Analysis Platform
- Enables partners to quickly launch a microbiome test powered by Microba's technology

Distribution Partners

Existing partners include:

- Synlab (EU)
- Macrogen (US)
- Metagenics (AU & NZ)

THERAPEUTICS

Developing novel monoclonal microbial cell therapies through Microba's data-driven Therapeutics Platform

Inflammatory Bowel Disease

- Potent novel monoclonal microbial drug candidates developed
- Manufacturing initiated
- Lead candidate entering Phase Ib trial in 2022

Cancer Immunotherapy

- Discovery program initiated
- Large study across US and AU together with leading cancer centres including Moffit and Princess Alexandra Hospital

Technology

Analysis Platform

Gut microbiome analysis technology which measures the gut microbiome with world-leading coverage and precision

Discovery Platform

Proprietary microbiome databank comprising >1.2M microbial genomes driving the discovery of therapeutic leads

Therapeutic Platform

Data-driven therapeutics platform enabling rapid development of novel monoclonal microbial cell therapies

