

Investor Presentation

Microba Life Sciences Limited (ASX: MAP) (“Microba” or the “Company”), is pleased to provide a copy of the presentation that Microba Chief Executive Officer Dr Luke Reid will present to a range of investor audiences across the United Kingdom from November 6 through to November 10 2023.

A copy of the presentation is attached to this announcement.

This announcement has been authorised for release by the Chairman and Chief Executive Officer.

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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, whose contact information is housed on the Investor Relations page of the Company’s website.

MICROBA™

Transforming health through the human microbiome

November 2023

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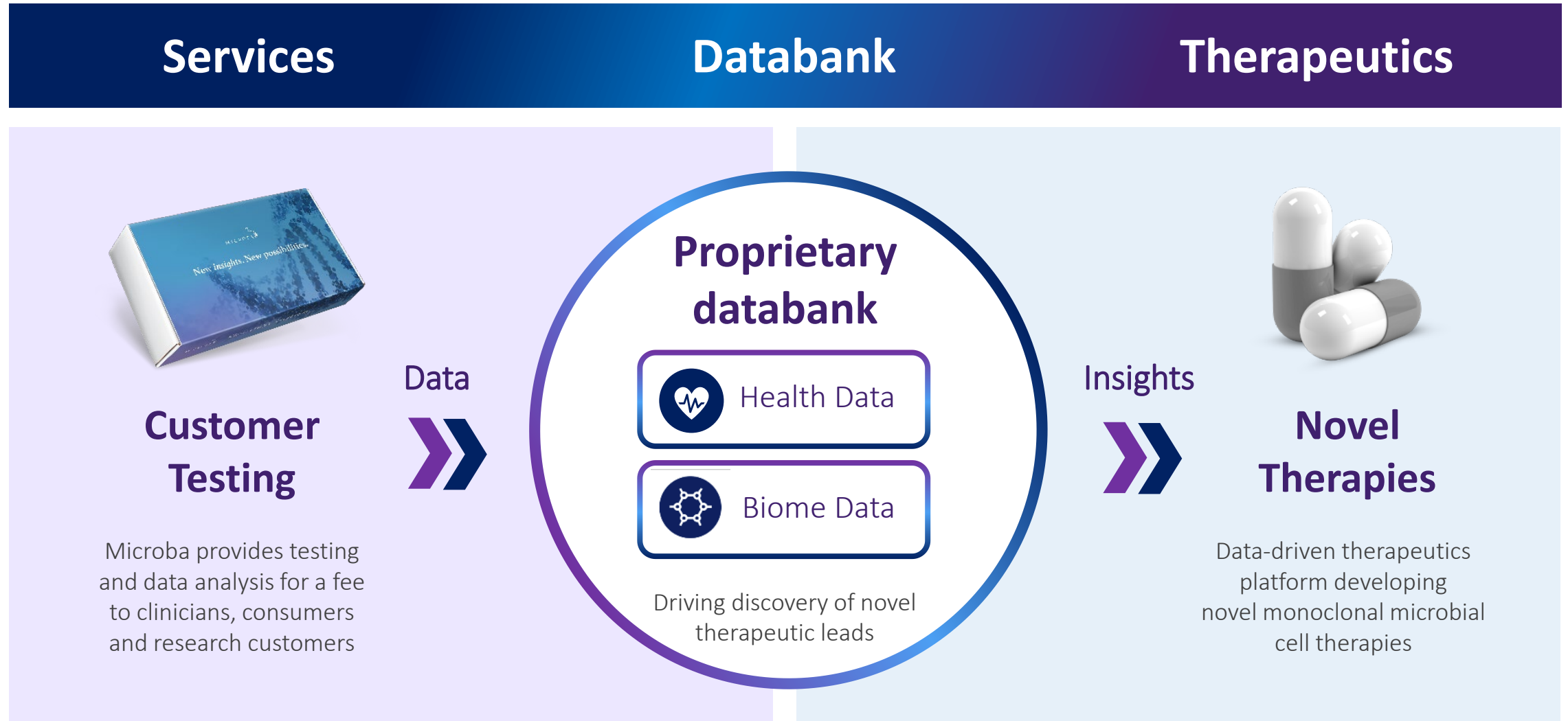
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Two core business segments driven by a proprietary databank



Company Snapshot



Continuous YoY revenue growth over 5 years of operations



Partnerships with market leaders incl. **Sonic Healthcare** (ASX: SHL), **Ginkgo Bioworks** (NYSE: DNA), **SYNLAB** (GR:SYAB) + more



Large, unique, proprietary microbiome databank



3 key therapeutic programs with lead IBD drug candidate **in Phase I trial** read out expected Dec 23



World-leading technology in the emerging and rapidly growing **US\$4.9 billion** microbiome sector¹



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



Microbiome Services

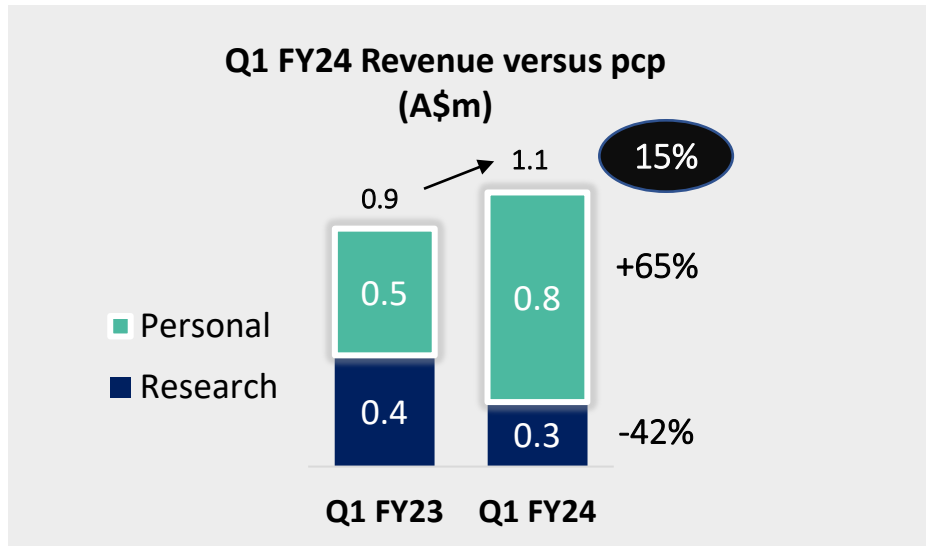
Driving global revenues
and data growth

| Q1 FY24 Highlights – Testing Services

65% Growth in personal testing



Execution of Microba’s Testing Services growth strategy saw 62% and 72% yoy revenue growth for domestic and international Personal Testing respectively. continued growth in uptake of MetaXplore™ in Australia with 33% growth in tests sold between June and September.



MetaPanel progressing to launch in Australia



Microba’s advanced infectious disease testing technology MetaPanel™ progressing to launch in Australia with Sonic Healthcare (ASX: SHL) targeting first test delivery before end of Q2 FY24.

Further European expansion



New agreement executed with SYNLAB to deliver Microba’s testing into Norway, Serbia and additional European countries.

\$26 million in cash or equivalents

as at 30 September 2023.

\$6 million FY23 R&D tax expected.

Advanced microbiome testing addressing large markets in healthcare

Addressable Healthcare Markets

Gastrointestinal disorders

MetaXplore™

Is the microbiome contributing to the patients DGBI and how can they manage?

150M est. addressable patients worldwide¹

Well established out of pocket private pay market

Gastrointestinal infection

MetaPanel™

Does the patient have a pathogen and how can I selectively treat it?

16M est. addressable patients worldwide²

Well established hospital direct-bill and path to reimbursement

¹Estimated based on the prevalence of specific Disorders of the Gut-Brain Interaction across 26 countries (Av prevalence of 32.8% DOI: [10.1111/nmo.14594](https://doi.org/10.1111/nmo.14594)), and the proportion regularly seeking medical support with one or more doctor visit per month (Average 15.4% - DOI: [10.1053/j.gastro.2020.04.014](https://doi.org/10.1053/j.gastro.2020.04.014))

² Estimated based on the global number of immuno-compromised patients and other patients at high risk for gastrointestinal infection (>8.1m chemotherapy treated solid tumor cancer patients and >1.1m haematological cancer patients DOI: [https://doi.org/10.1016/S1470-2045\(19\)30163-9](https://doi.org/10.1016/S1470-2045(19)30163-9)), (>3m dialysis patients DOI: 10.1038/s41581-022-00542-7), (>140k Organ Transplant patients per year <https://www.transplant-observatory.org/>), (>3.5m long stay ICU patients – estimate based on data from <https://ourworldindata.org/grapher/intensive-care-beds-per-100000>)

MetaXplore™ Advanced, comprehensive, GI testing for improved management of chronic GI disorders

- Large addressable patient population est. >150m ppl
- Comprehensive GI and microbiome assessment
 - Diagnostic and investigative gastrointestinal health markers (7 markers)
 - Diagnostic pathogen and parasite detection (12 markers)
 - Complete microbiome profiling (Over 28,000+ microbial species)
 - Microbiome production and consumption of metabolites (13 markers)
 - Scientifically graded clinical insights using NHMRC guidelines
- Strong uptake in Australia following launch in Q3 FY23
- Following the launch in Australia, expected to be rolled out through Microba's growing international distribution partner network.



MetaPanel™

Unlocking the power of metagenomics for comprehensive assessment of enteric infections

- High risk and immunocompromised initial patient population >16m
- Most comprehensive GI infectious disease test available spanning a comprehensive set of targets:
 - multi-domain pathogen species
 - virulence factors
 - AMR gene families
 - AMR gene variants
- Distribution agreement signed for first commercial launch with Sonic Healthcare
- Large potential commercial opportunity via hospital direct bill and path to reimbursement



Microba's leading international bench of healthcare partners



\$9.3bn Revenue
Partnership: UK, Germany, Belgium, Australia, US, NZ & Switzerland



\$5.8bn Revenue
Partnership: Europe & LATAM



Leading GI Diagnostics in US
Partnership: US



Raised USD \$800m
Partnership: GCC Region

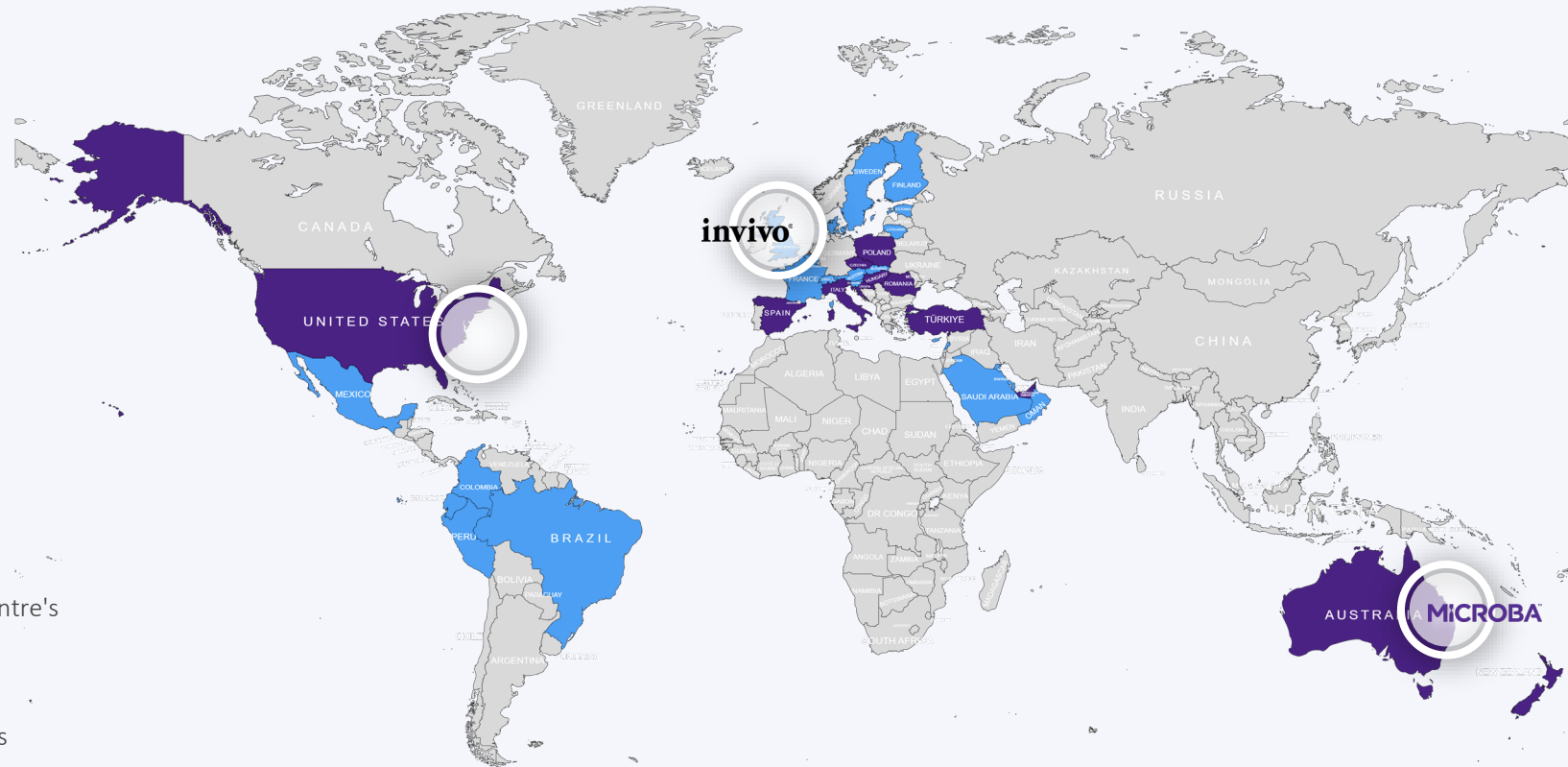
Microba's **Healthcare & Pathology Partners**

Significant international distribution

Partners provides access into 35 countries with 14 now operational



Strategic acquisition unlocking a geographical base and laboratory in the UK, supporting the next phase of Microba's international growth strategy.



- Operating Team and/or Laboratory Centre's
- Contracted partner/s operational
- Access via current distribution partners

A scientist in a white lab coat and gloves is working in a laboratory. They are holding a black tray with several small vials in their left hand and are using their right hand to interact with a Fisherbrand Bead Mill 24. The machine is white with a blue control panel and a clear protective shield. The background shows a typical laboratory environment with white cabinets and electrical outlets.

| UK Strategic Aquisition

Taking a leading position in the UK market

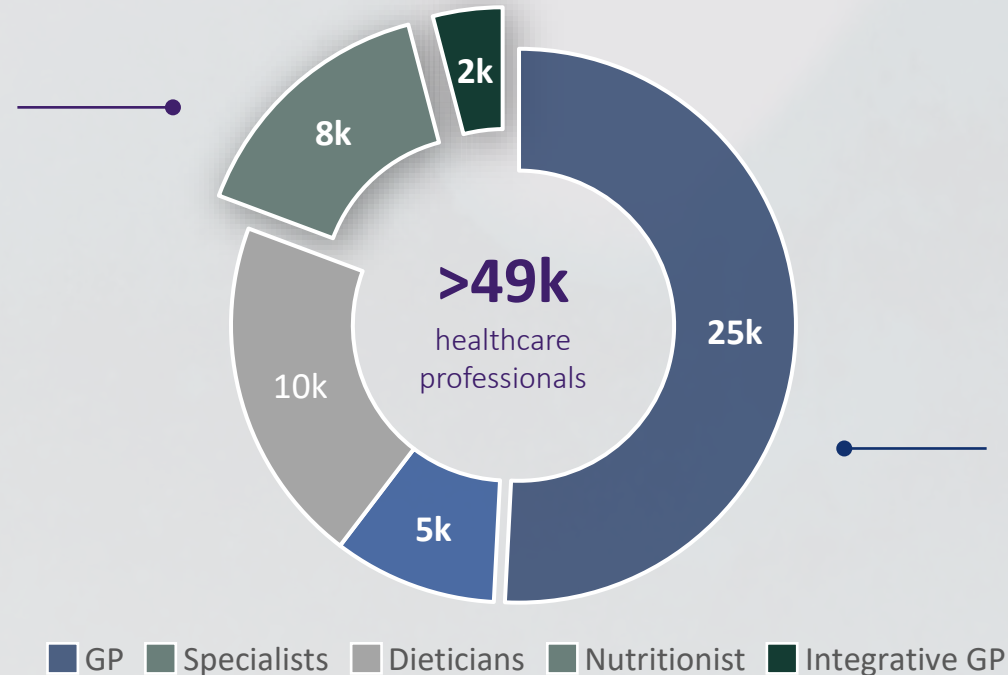
Invivo together with our Sonic Healthcare partnership provides Microba with deep access to the entire UK healthcare market spanning private practice and the public NHS environment

invivo[®]

Capturing the integrative healthcare market

- Leading microbiome testing company targeting integrative healthcare practitioners
- Est. 10k integrative healthcare professionals in the UK*
- Growth market – more people seeking out private health services in the UK
- Customers positioned to adopt Microba's MetaXplore testing

UK TARGET HEALTHCARE MARKET



Driving broad adoption into general practice, specialists & hospitals

- Leading medical diagnostics company in the UK
- Preparing to deliver MetaXplore and MetaPanel
- Addressable UK target practitioners:
 - 25k General Practitioners[^]
 - 10k Clinical dieticians[^]
 - 4.7k Specialists positioned to adopt microbiome testing[^]

| Invivo acquisition provides strong UK customer base

FY23

Key metrics

7,300+ tests sold

1,700+ ordering HCPs[^]

A\$8.9m revenue^{*}

10,000+ sample biobank

Engaged customer base

17% penetration into the UK integrative healthcare professional market and well positioned to accelerate growth

 **94%**

of revenue driven by repeat customers[#]



□ Remaining market □ Invivo customer □ Invivo engaged lead

 **51%**

Gross Profit Margin

| Strengthening Invivo's position in GI microbiome testing

A platform for UK market entry and growth of Microba's MetaXplore™ test

 **79%**

of Invivo's **testing revenue** is through their GI products*.

 **19%**

growth in GI testing revenue in FY23^

“From our leading position in market, we expect Microba’s world leading MetaXplore™ will become the most favoured microbiome test for healthcare professionals in the UK” Debbie Cotton – Head of Clinical Innovation, Invivo

- **Current leading GI testing product for UK** healthcare professionals
- Featuring 7 host markers, 62 microbial markers
- Microbiome analysis via multiplex PCR
- Offers static PDF reports



- **Next generation advanced GI test** using Microba's world leading metagenomic technology
- Includes 7 host markers, 28,000 microbial markers, 19 microbiome functions
- Offers both static PDF and interactive digital reports.



Microbiome Therapeutics

Developing novel monoclonal
microbial cell therapies

| Q1 FY24 Highlights – Therapeutics



Inflammatory Bowel Disease Program

MAP315 Phase I all patients dosed. Positive MOA data generated.

Dosing and all patient visits successfully completed. Preliminary blinded data indicates that MAP315 is well tolerated. Multi-modal mechanism of action (MOA) data generated for MAP315. Results remain on track for Dec 2023.



Immuno-Oncology Program

Confirmed potent anti-tumour activity.

Second mouse model demonstrated again that Microba's therapeutic leads significantly reduce tumour burden. Further, immunological studies demonstrated activity consistent with induction of a specific and targeted immune response. Additional animal studies and immune profiling experiments are continuing with further data expected in Q2 FY24.



Autoimmune Disease Program

Primary screening >50% complete.

Microba have transferred all target strains to Ginkgo and Stage 1 activity screens are now more than 50% complete. It is expected that Stage 1 activity screening is completed, and data available by the end of Q2 FY24. Stage 2 screening to complete in H1 2024.

A therapeutic revolution.

Novel, precision microbiome therapeutics

Precision Microbiome Therapeutics

- **Precision microbiome analysis platform** delivering unparalleled accuracy, coverage & depth.
- Data driven discovery platform utilising one of the worlds **most advanced & highly curated microbiome datasets**.
- Next generation approach to microbiome drug development **identifying single keystone species and their biology to develop Live Biotherapeutics**.



Innovative Pipeline

- ✓ Excellent safety profile
- ✓ Scalable GMP manufacturing for high dose oral delivery
- ✓ Potent and novel biology mediated by Live Biotherapeutic strategy

Strong Corporate Profile

- ✓ US Pharmaceutical Executive leadership
- ✓ Technically robust multi-disciplinary team
- ✓ Global partners

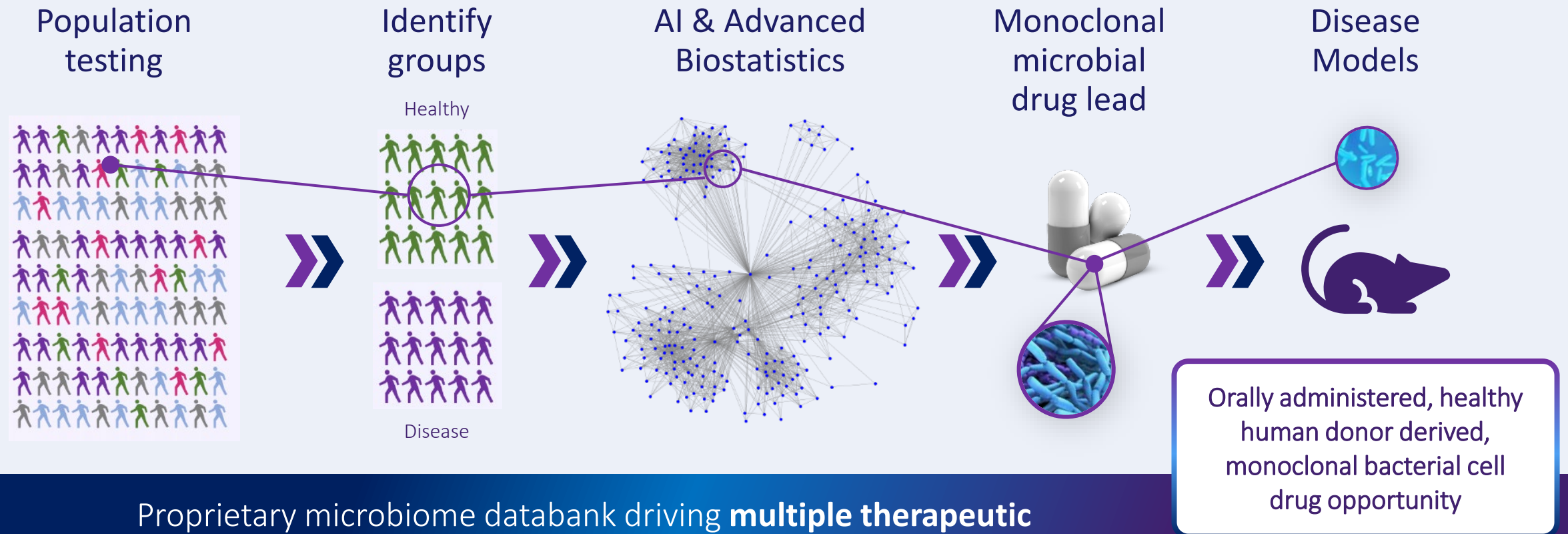
Microba Partners



Team Experience



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



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

Rapid progress tapping the therapeutic potential of the human microbiome for major chronic diseases

Inflammatory Bowel Disease



PHASE I IN PROCESS

Recently Completed

- ✓ Phase I HREC approval
- ✓ cGMP manufacturing complete
- ✓ Phase I trial commenced
- ✓ Phase I participant dosing complete

Upcoming milestones

- Phase I complete



Immuno-Oncology Program



PRECLINICAL

Recently Completed

- ✓ Leads discovered
- ✓ Leads isolated
- ✓ First animal model results

Upcoming milestones

- Immunological pre-clinical results
- Lead candidate selection



Autoimmune Diseases



SCREENING

Recently Completed

- ✓ Program commenced
- ✓ Strains provided to Ginkgo
- ✓ First in vitro screening results

Upcoming milestones

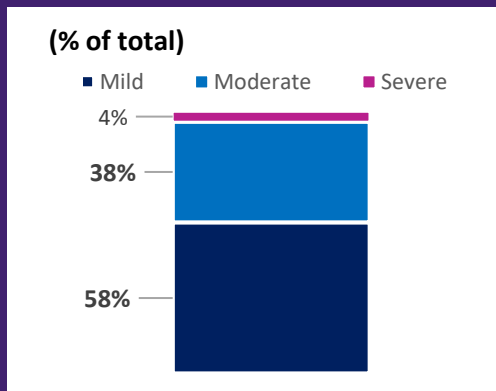
- Stage 1 activity screening complete
- Stage 2 activity screening complete



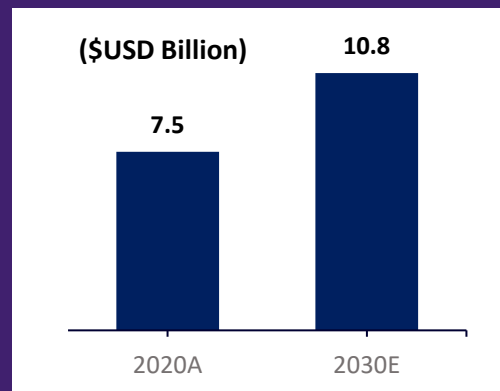
Inflammatory Bowel Disease program – MAP 315

Addressing a key gap in existing therapy for UC sufferers

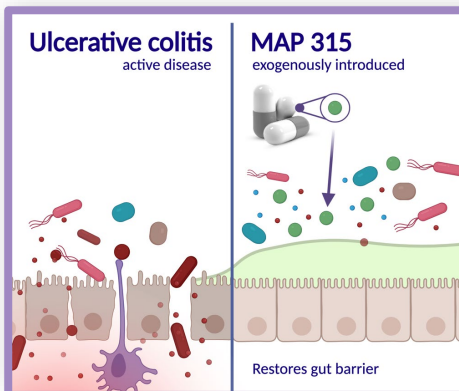
Ulcerative Colitis Addressable Patient Population¹



Ulcerative Colitis Therapeutic Global Market Size²



MAP 315 has the potential to provide **novel, potent therapeutic benefit** to UC patients through addressing a **key gap** in existing care – **epithelial and mucosal healing**

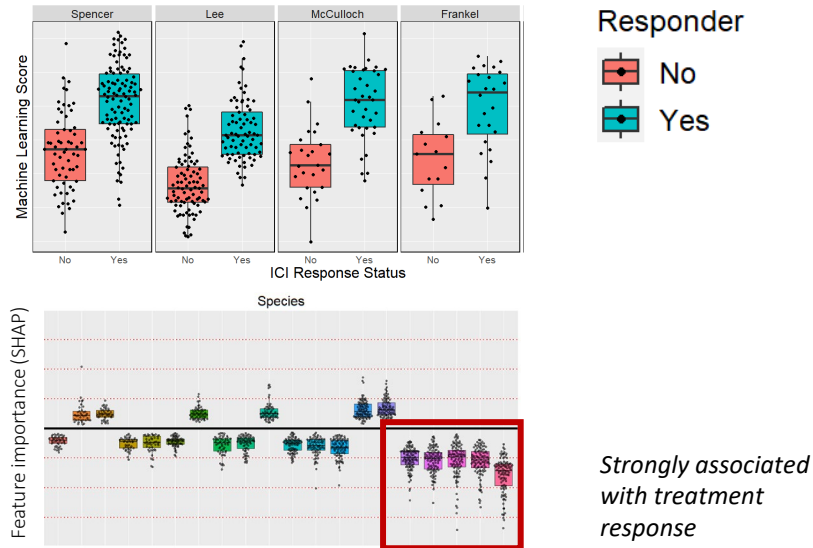


¹ <https://www.crohnscolitisfoundation.org/sites/default/files/2019-02/Updated%20IBD%20Factbook.pdf>

² <https://www.nature.com/articles/d41573-021-00194-5>, <https://www.alliedmarketresearch.com/ulcerative-colitis-market>

Immuno-oncology program – Positive animal data

1 Human clinical data driven lead candidate discovery

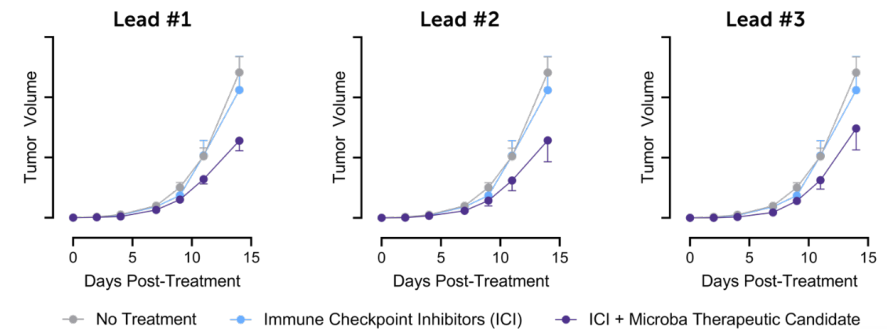


Meta-analysis of multiple datasets using Microba's high-resolution technology identifies multiple species not previously found to be associated with treatment response.

2 Proof of concept achieved in immune checkpoint inhibitor (ICI) refractive mouse model

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.



The global ICI market is valued at over US\$30B¹ – a novel therapeutic that increases response to these drugs represents a substantial commercial opportunity



The Microbiome has been identified as a critical element across the spectrum of Cancer Biology

Autoimmune disease program – Primary screening 50% complete

Building towards biobank of valuable therapeutic assets

- ✓ Novel high-throughput anaerobic cultivation and screening platform has been established in partnership and all Microba strains transferred
- ✓ Results have been delivered identifying leads with:
 - anti-inflammatory activity;
 - effects on gene transcription associated with immune modulation; and
 - other biological mechanisms of relevance to autoimmune and other chronic diseases
- ✓ Primary screening now 50% complete and program tracking positively to deliver a deeply characterised biobank containing therapeutic leads for multiple autoimmune diseases

Program Overview

- 2 year discovery program which commenced in May 2022
- Leveraging 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 and Lupus
- Both parties are contributing investment and intellectual property to the program.



NYSE: DNA | Market cap \$4.7B* | Boston HQ



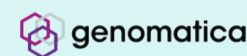
 Cargill

 CORTEVA
agriscience

 Ajinomoto

 KERRY

 Roche

 genomatica

 JOYN
BIO

 BAYER

 motif
FOODWORKS

 synlogic

 moderna

#

The start of a therapeutic revolution

1 First Generation



Fecal Doner Derived



FDA approval Nov 30 2022
Fecal doner derived enema drug product



FDA approval April 27 2023
Fecal doner derived oral capsule drug product

2 Second Generation



Bacterial Consortia



Vedanta Biosciences
Vedanta Biosciences Raises \$106.5M in Funding



SER-155
Phase 1b showing engraftment reduction in pathogens

3 Next Generation













Single Strain & Small Molecule



MAP315
Phase I – Ongoing, readout expected December 2023

Executing towards pharmaceutical out-licensing transactions

Recent IBD and microbiome deals

Licensee / Acquiror	Licensor / Target	Date	Type	Deal size	Indication / clinical stage
 MERCK	 Prometheus Biosciences	Apr 2023	Acquisition	Total deal size: US\$10.8b	Ulcerative Colitis (phase 2) Crohn's disease (phase 2A) Autoimmune diseases (phase I or pre clinical)
 Nestlé HealthScience®	 Enterome	July 2022	R&D collaboration and license agreement	Total deal size: Undisclosed Upfront: €40m Sales / regulatory milestones: Undisclosed	Food allergies and IBD (pre clinical)
 Pfizer	 ARENA PHARMACEUTICALS	Mar 2022	Acquisition	Total deal size: US\$6.7b	Ulcerative Colitis (FDA Approved, 2023), Crohn's disease (phase2/3), Atopic dermatitis (phase 2 complete)
 Roche  Genentech <small>A Member of the Roche Group</small>	 NOVOME BIOTECHNOLOGIES	Nov 2021	R&D collaboration and license agreement	Total deal size: US\$605m Upfront: US\$15m Additional payments: US\$590m	IBD (Discovery)
 Nestlé HealthScience®	 SERES THERAPEUTICS	Jul 2021	Licensing agreement in US/Canada	Total deal size: US\$525m Upfront: US\$175m Sales / regulatory milestones: Up to US\$225m	Recurrent Clostridioides difficile infection (Phase 3)

<https://www.merck.com/news/merck-strengthens-immunology-pipeline-with-acquisition-of-prometheus-biosciences-inc/>
<https://www.enterome.com/news-events/enterome-signs-major-strategic-rd-collaboration-with-nestle-health-science-to-develop-and-commercialize-new-allermimics-and-endomimics-immunotherapies-for-food-allergies-and-inflamm/>
<https://www.pfizer.com/news/press-release/press-release-detail/pfizer-completes-acquisition-arena-pharmaceuticals>
<http://novomebio.com/wp-content/uploads/2021/11/Novome-and-Genentech-Enter-into-Strategic-Collaboration.pdf>
<https://ir.serestherapeutics.com/news-releases/news-release-details/seres-therapeutics-nestle-health-science-announce-ser-109-co>

Outlook



Upcoming Milestones for 2023

2023 JAN – MAR	2023 APR - JUN	2023 JUL - DEC
Services New healthcare product full launch 	Services New international distribution deals 	Services New country expansion 
Services New international distribution deals 	Therapeutics - IBD MAP 315 program HREC Approval for Phase I trial 	Services First Sonic partners operational
Therapeutics - IBD MAP 315 program Phase I HREC Submission 	Therapeutics - IBD MAP 315 program GMP manufacture complete Phase I 	Therapeutics - IBD MAP 315 program Phase I participant dosing complete 
Therapeutics - IBD MAP 315 program FDA Pre-IND meeting outcome 	Therapeutics - IBD MAP 315 program Phase I trial commencement 	Therapeutics - IBD MAP 315 program Phase I complete
Therapeutics - IO Program Pre-clinical results 		Therapeutics – IO Program Immunological pre-clinical results
Therapeutics – Autoimmune Program First <i>in vitro</i> screening results 		Therapeutics - Autoimmune Program Stage 1 activity screening complete



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Appendix

Additional In vivo Details

Multi body site testing portfolio with targeted interventions

Microbiome tests range

Opportunity to accelerate with Microba's market leading testing technology

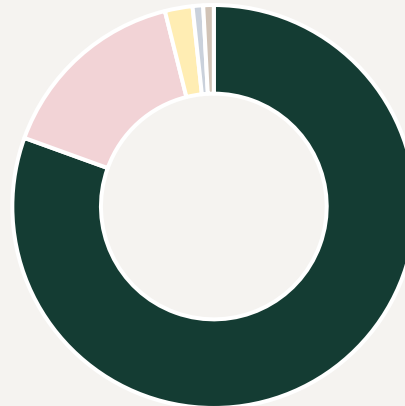
Range spans Gastrointestinal, Vaginal, Oral and Urinary testing

- Invivo has provided Gastrointestinal microbiome testing since 2015 and established a leading position with healthcare professionals
- Additional testing products including Vaginal, Oral and Urinary testing have subsequently been launched
- Vaginal microbiome testing opportunity growing rapidly as science demonstrates impact on infection management and fertility.



% of Testing Revenue*

- GI
- Vaginal
- Urinary
- Oral
- Other



Targeted interventions

Supporting intervention from test results

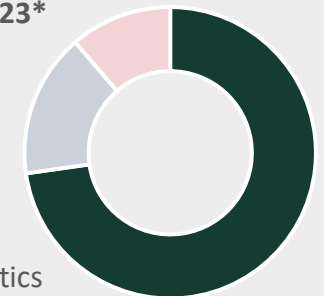
Targeted products supporting healthcare professionals to address microbiome test results



- Invivo's targeted formulations provides supporting interventions for addressing microbiome test results, formulated by clinicians and scientists using evidence-based medicine principles
- Strategic distribution relationship with Designs for Health

% of Unit Sales in FY23*

- Probiotics
- Function
- Elimination



| Invivo has a strong brand, reputation, and team

- Pioneer in UK microbiome testing services
- Established a strong brand with healthcare professionals
- Self-funded with positive operating cashflow
- Positioned for growth acceleration
- Experienced and well-credentialed team

Laboratory - Bristol

- 10 staff
- PCR laboratory
- CL2 laboratory

Headquarters - Stroud

- 23 staff
- Finance, sales and marketing
- Customer service & clinical support



Multiple growth opportunities exist before introducing Microba synergies

- Continued growth acceleration in Vaginal microbiome testing revenue with 40% growth in FY23.
- New targeted interventions are in late-stage development to address clinician and patient needs.
- The integrative healthcare market is expanding as clinicians move to private practice due to pressure on the NHS.
- Small sales team which is positioned for expansion with significant opportunity to accelerate growth.