



MicroViable **therapeutics**

CONFIDENTIAL - April 2023

C/ Los Prados, 166 33203 Gijón, Asturias (Spain)



Our Approach

Developing microbiome therapies and novel biological drugs based on human commensal bacteria to address unmet challenges in various diseases



Mission

To develop novel biological drugs providing innovative solutions to health care

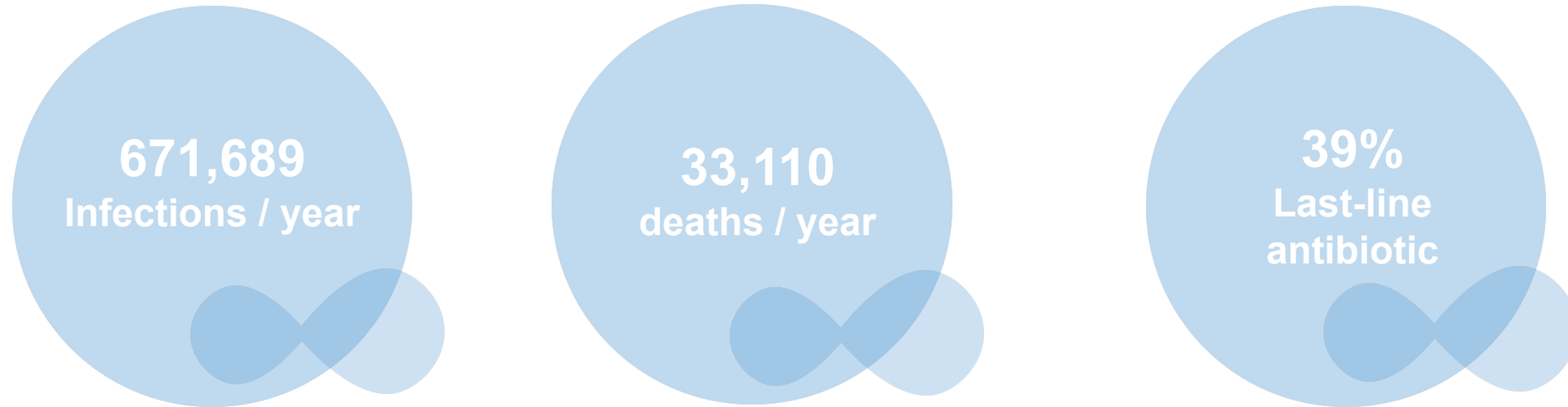
Vision

To address unmet challenges in human disease harnessing the human microbiota

Values

Creative – Supportive – Competitiveness –

Antibiotic Resistant bacteria

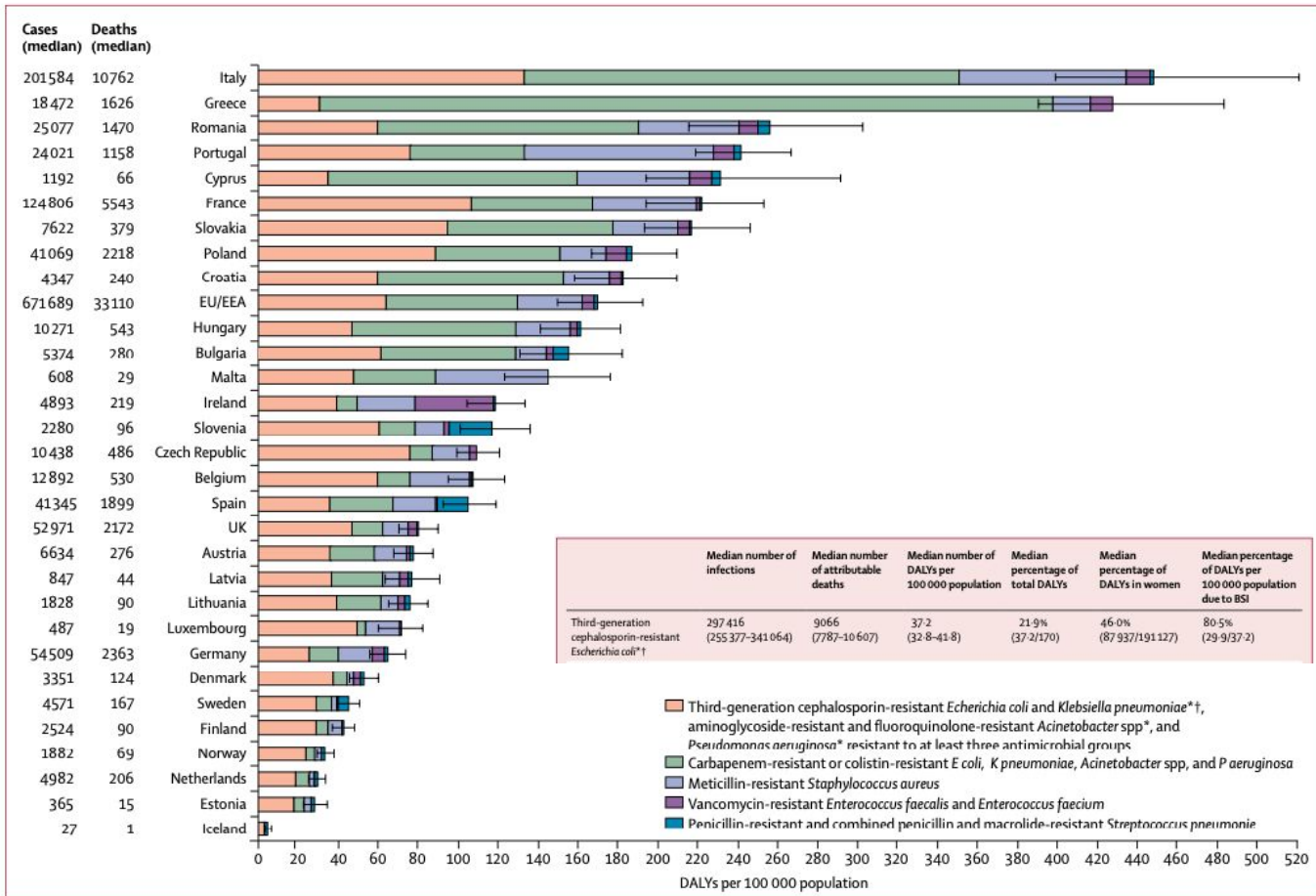


Blood stream infections - Urinary Tract infections - Respiratory Infections - Surgical site infections - Others



Europe and European Economic Area: Antibiotic-resistant bacteria

Antibiotic Resistant bacteria



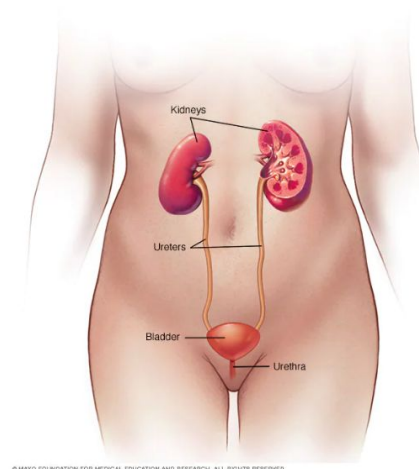
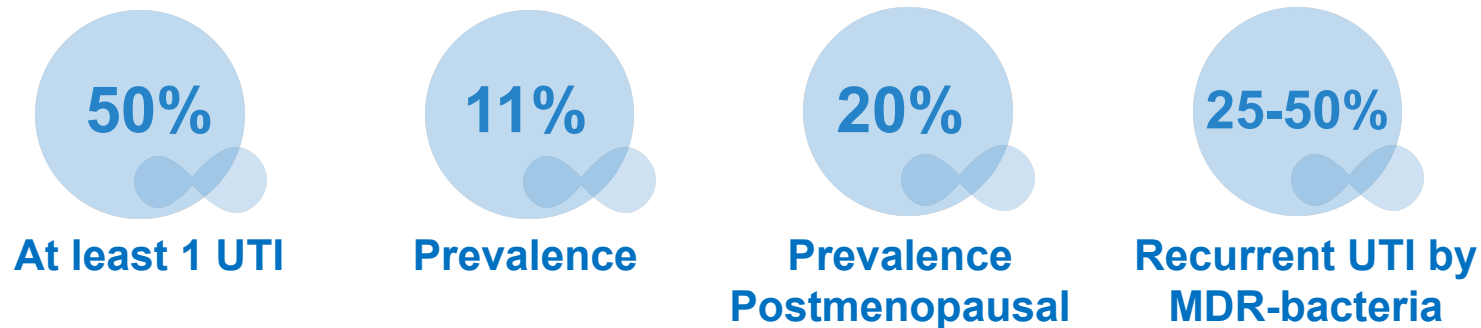
- Third-generation cephalosporin resistant *E. coli* account for the most prevalent infections and deaths (297,416 & 9066)
- Colistin and Carbapenem-resistant *E. coli* additional threats

Higher prevalence in women due to recurrent Urinary Tract Infections

Urinary Tract infections

Urinary Tract Infections

- Higher prevalence in women: affects urethra – bladder – kidneys
- Mainly caused by *E. coli*, also *Klebsiella* and *Pseudomonas*, *Enterococcus*
- Cross-contamination from anus
- Most common outpatient infection in US - Approx. \$1.6 billion annually (US)
- Significant source of morbidity and mortality
- **The gut microbiome is a reservoir of antibiotic-resistant and MDR-pathogenic bacteria causing rUTI**
- **Gut microbiome interventions can ablate the MDR-pathogenic bacteria**

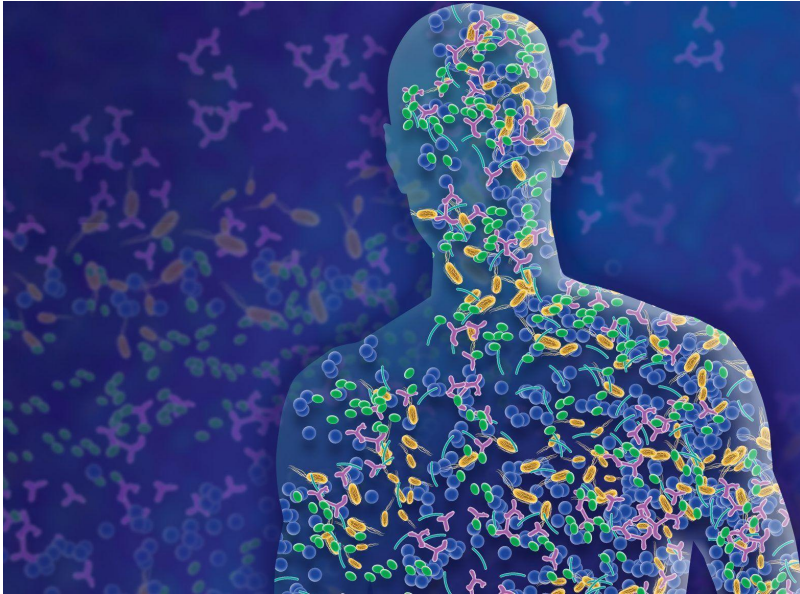


© MAYO FOUNDATION FOR MEDICAL EDUCATION AND RESEARCH. ALL RIGHTS RESERVED.

Urgent need for novel treatment

The Microbiome as a source for biotherapeutics development

Our Approach



Trillions of microorganisms that inhabit our body

- Oral – Gut – Skin – Vaginal and other microbiomes
- Gut microbiome: consider another human organ

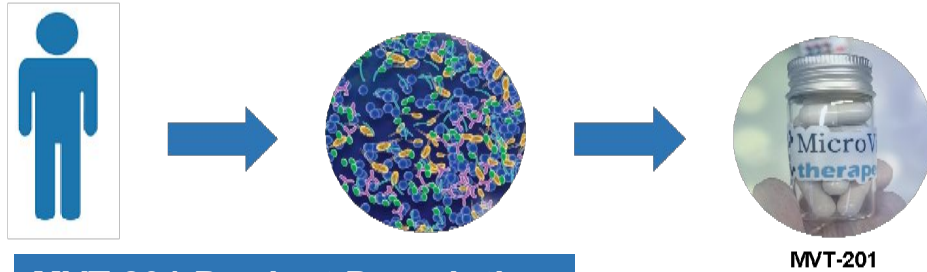
Biological functions:

- Essential compounds: Vitamins, amino acids, neurotransmitters
- Modulating the immune system
- Protection against pathogens

Developing Novel Biological Drugs based on human commensal bacteria to address unmet challenges in diseases, dermatology and oncology

MVT-201: complete microbiota ecosystem product

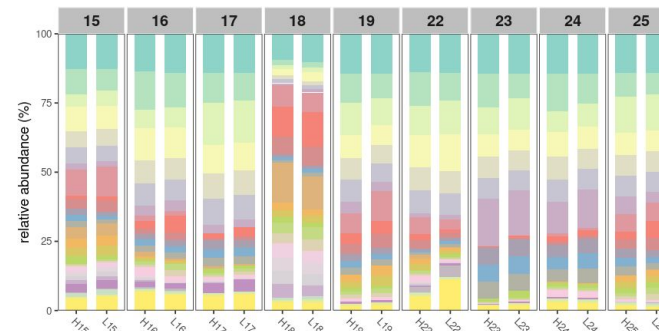
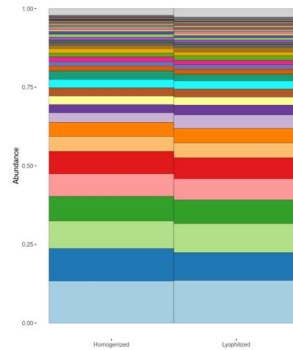
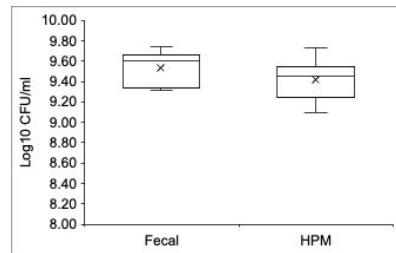
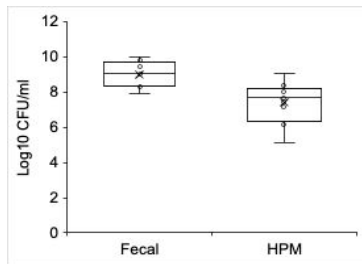
Our Approach



The complete microbiota from a healthy person is used to generate a biological to treat infectious diseases

MVT-201 Product Description

- Complete Microbiota Ecosystem Product as an orally administered capsule
- **Proprietary technology to obtain, purify and encapsulate complete microbiota in viable conditions**
- Non-propagated, donor-derived
- Fingerprint of the original microbiota composition and diversity from a clinically validated healthy donor
- High-diversity, high-richness and high bacterial viability



MVT-201: complete microbiota ecosystem product

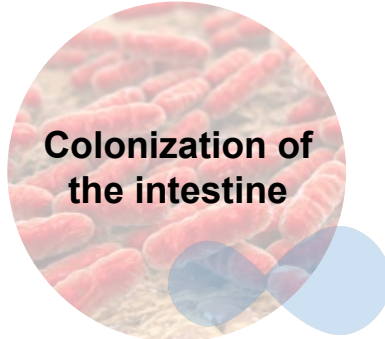
Our Approach

How it works



Oral
administration
cGMP capsule

Lyophilized oral capsule of
complete microbiota
generated under cGMP facility



Colonization of
the intestine



The administered
microbiota colonize the
intestine of the patient



Pathogen
depletion

The colonization forced
pathogen depletion through
competitive exclusion
mechanism of action

Our Therapeutics Pipeline

Product	Indication	Discovery	Pre-clinical	Clinical
MVT-201: Complete Microbiota Ecosystem (Full spectrum, high-diversity) 	rUTI			

MVT-201 Pipeline for rUTI

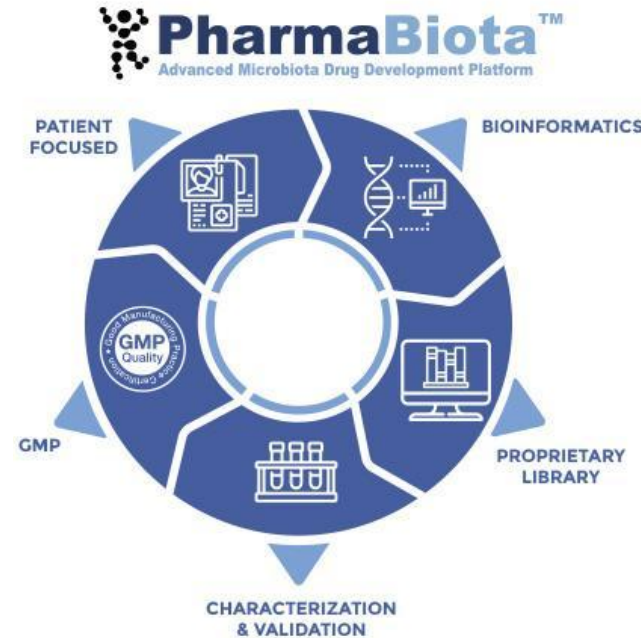
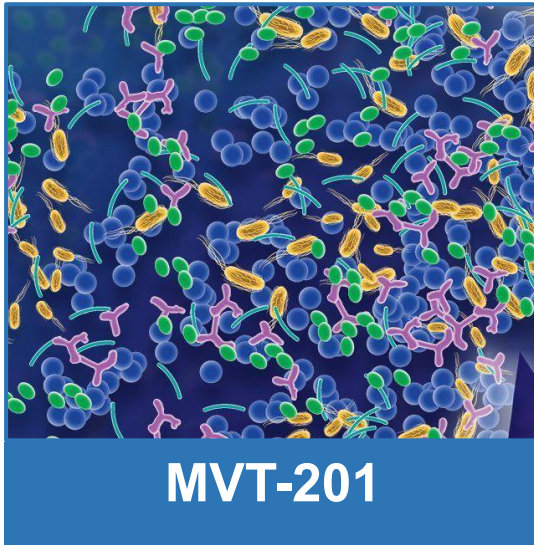
- Product development and optimization finalized
- *In vitro* data of MVT-201 generated
- cGMP facility construction and IND- application in Q2 2023
- rUTI clinical trial expected in Q1 2024

Commercial Approach

- MVT-201 as a Biological Drug
- Microbiota-based Advance Therapy as Personalized Medicine
- Stablished Partnership



Platform Expansion



Advance Therapy

Microbiome targeted modulation


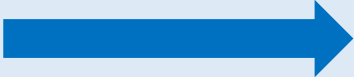


- Proprietary bacterial culture collection
- Large and diverse
- Thousands of isolates from hundreds of species
- Extensive metagenomics data

Bacterial Consortia

Rationally defined and designed bacterial consortia for each specific disease

Pipeline Expansion – 6M Series

Therapeutics Pipeline Expansion

Product	Indication	Discovery	Pre-clinical	Clinical	
MVT-201: Complete Microbiota Ecosystem	rUTI				Q1 2024
MVT-601: Defined Bacterial Consortia	Atopic Dermatitis			Expected 2025	
MVT-201: Complete Microbiota Ecosystem	Oncology				Expected 2024
MVT-1301: Defined Bacterial Consortia	Oncology			Expected 2025	

Pipeline Expansion – 6M Series

Therapeutics Pipeline Expansion

	2023	2024	2025	2026	Total
HHRR	432,000	550,000	656,900	656,900	
GMP facilities	790,000	0	200,000	0	
R&D expenses	105,000	130,000	200,000	500,000	
Preclinical	110,000	250,000	250,000	300,000	
Clinical trial	50,000	250,000	500,000	750,000	
General Expenses	178,000	220,000	350,000	350,000	
Total per year	1,665,000	1,400,000	2,156,900	2,556,900	6,113,800

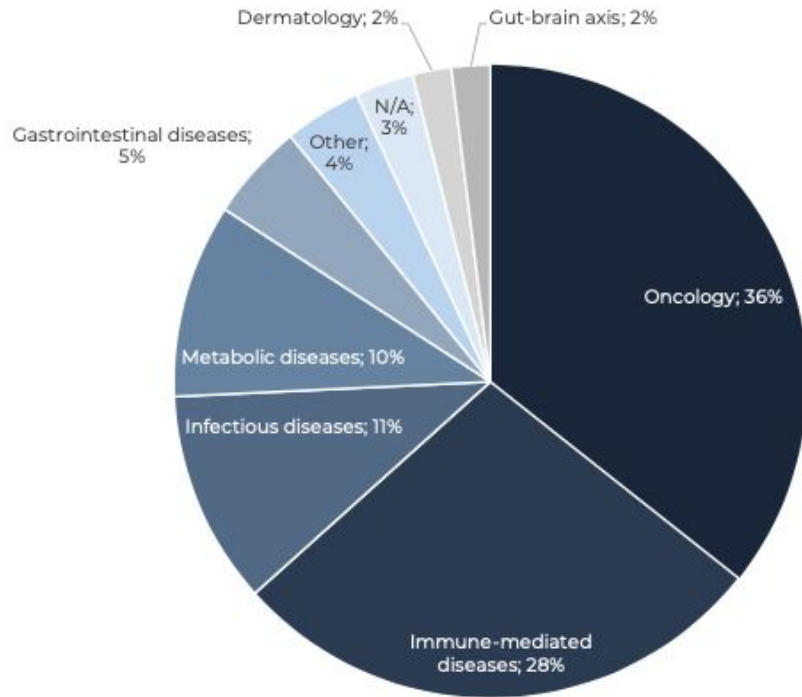
Pipeline Expansion – 6M Series

Income	2023	2024	2025	2026
GutAlive Sales	90,000	110,000	130,000	150,000
End-to-end Projects Sales	100,000	200,000	300,000	400,000
Competitive Funding	170,740	100,000	50,000	200,000
Tax Return	35,000	70,333	70,000	0
Loan	500,000	0	0	0
First Deal	0	0	5,000,000	3,000,000
Second Deal	0	0	0	5,000,000
Total income	895,740	480,333	5,550,000	8,750,000
Expenses	2023	2024	2025	2026
HHRR	432,000	550,000	656,900	656,900
GMP facility	790,000	0	200,000	0
R&D Expenses	105,000	130,000	200,000	400,000
Preclinical	110,000	250,000	250,000	300,000
Clinical Trial	50,000	250,000	500,000	750,000
General Expenses	178,000	220,000	350,000	350,000
GutAlive	30,000	33,333	40,000	50,000
Total Expenses	1,695,000	1,433,333	2,196,900	2,506,900
Annual Balance	-799,260	-953,000	3,353,100	6,243,100
Equity	1,000,000	3,000,000	3,000,000	
Balance	200,740	2,047,000	6,353,100	6,243,100

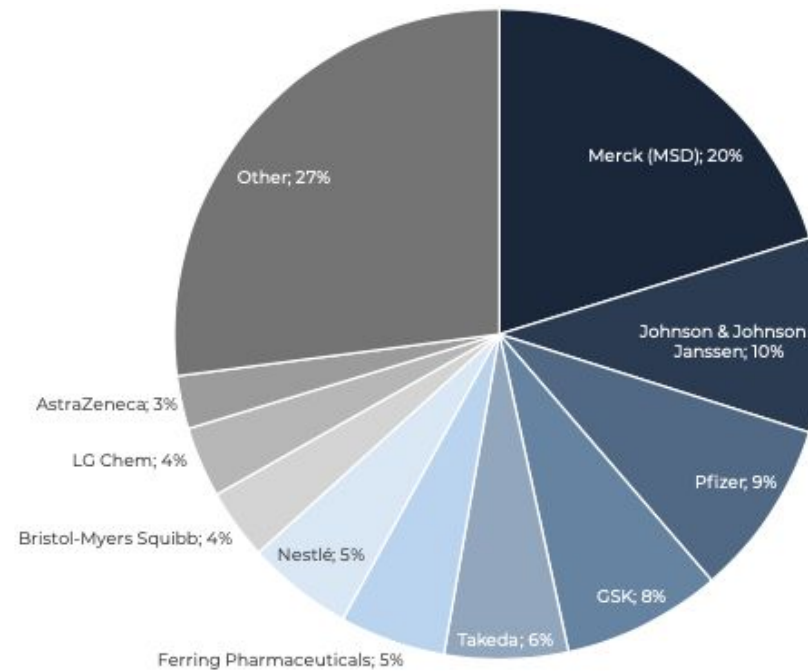
Big Pharma Investment in Microbiome-derived biotech

Business Analyses

Pharma Agreements with microbiome companies by therapeutic area



Pharma investment distribution per company





Claudio Hidalgo Cantabrana, PhD
Chief Executive Officer and co-founder



Rafael M. Permuy, MBA
Chief Business Officer and co-founder



Noelia Martinez, PhD
R&D director and co-founder



Abelardo Margolles, PhD
Scientific Advisor and co-founder
Professor of Research at IPLA-CSIC



Susana Delgado, PhD
Scientific Advisor and co-founder
Principal Investigator at IPLA-CSIC



Borja Sánchez, PhD
Scientific Advisor and co-founder
Principal Investigator at IPLA-CSIC

- Incorporated in 2016, spinoff IPLA-CSIC
- Founders: 5 PhD scientists + 1 MBA
- Location: Gijón, Asturias, Spain
- Products and services on the market
- 10 employees
- Highly qualified team: 5xPhD, 1xMS, 2xMBA



Total funding: 2,4M euros

- 1,8M euros equity
 - 0,6M euros competitive funding
- 2x European Seal of Excellence





Founded in 2016



**High Talented Team
50% PhD**



**Microbiome,
Drug Development,
Advanced Therapies**

**World Wide
Clients**



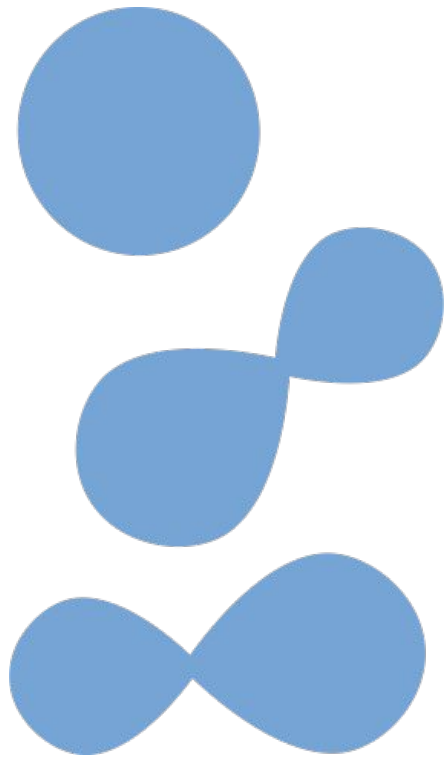
**Scientific & Commercial
Partnerships**



**Certified Management
System**



ER-0111/2021



Science & Tech

- PharmaBiota® platform for biological drug discovery
- Proprietary bacterial library
- IP portfolio growing
- New Generation Products
- 2x European Seal of Excellence

Pipeline

- MVT-201 going into the clinical trial in Q1 2024
- In-house cGMP facilities in Q3 2023
- Preclinical stage of other 4 products
- Complete microbiota ecosystem & LBPs products

Partnerships

- Immuno-Oncology & ICI
- Biomarkers for undisclosed gut disease
- New Generation Products
- Clinical Partners



Funding

- Total equity raised: 1.8M
- Competitive funding: 0.6M
- To raise Series A: 5M in 2023-2024



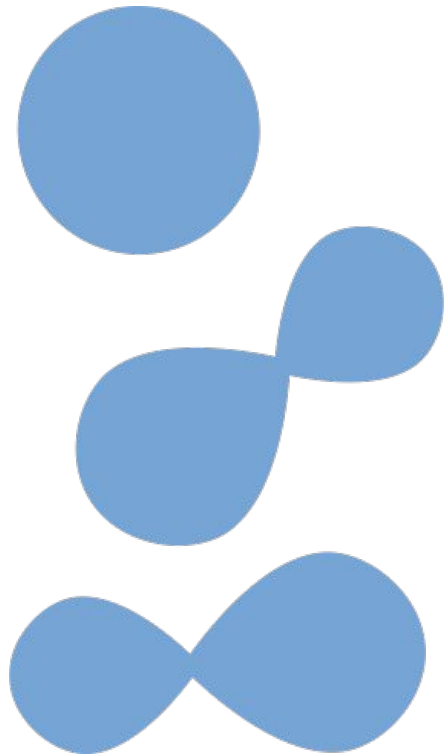
Microbiota-based Biotherapeutics
Development



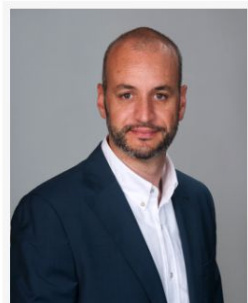
Medical Device for microbiota sampling



Ent-to-end Microbiome Projects
Ad-hoc projects



Business Lines



Claudio Hidalgo, PhD
President & CEO



Noelia Martínez, PhD
Secretary & CSO



Rafael M. Permuy, MBA
Board Member & CBO



Luis Prieto
Board member



Jose Vigaray, MD
Board member



M. Mehdi Chouikh
Board member



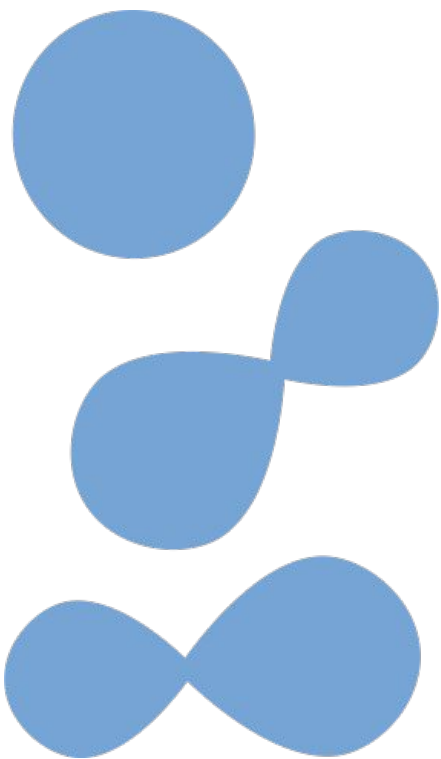
Luis Buznego
Board member



Manuel Monge
Board member



Francisco Moris, PhD
Board member



Board



Rosa del Campo, PhD, MD

Scientific Advisor

Microbiologist at Hospital Ramón y Cajal,
Madrid, Spain

Dr. Del Campo is a research microbiologist on the clinic at Hospital Ramón y Cajal, Madrid. Rosa has clinical practice on FMT for infectious disease and is one of the leaders in Europe and Spain.



Carlos López Otín, PhD, MD

Scientific Advisor

Professor at University of Oviedo, Spain

Dr. Otín is Professor of Biochemistry at the University of Oviedo where he has been leading research in oncology and aging over the past decades. Carlos latest research includes the discovery of two novel syndromes involved in accelerated aging.



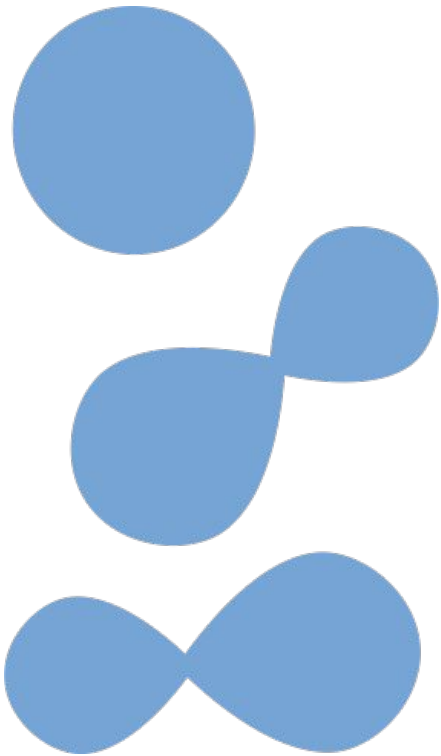
Josbert J. Keller, MD, PhD

Scientific Advisor

Gastroenterologist at Haaglanden
Medical Center

The Hague, Netherlands.

Dr. Keller works as general gastroenterologist at the Haaglanden Medical Center, The Hague. He was the co-founder of the Netherlands Donor Feces Bank at the Leiden University Medical Center. He is currently involved in research projects addressing stool banking and the effects of FMT for IBD and other disorders.



— Scientific Advisory Board



MicroViable **therapeutics**

C/ Los Prados, 166 33203 Gijón, Asturias (Spain)