

Global Human Microbiome Immunology Therapeutics Market & Clinical Trial Insight 2025

https://marketpublishers.com/r/G806E39B85E8EN.html

Date: August 2020

Pages: 300

Price: US\$ 3,000.00 (Single User License)

ID: G806E39B85E8EN

Abstracts

Please note: extra shipping charges are applied when purchasing Hard Copy License depending on the location.

'Global Human Microbiome Immunology Therapeutics Market & Clinical Trial Insight 2025' Report Highlights:

Global & Regional Market Insight

Global Human Microbiome Immunology Therapeutics Market: >US\$ 1 Billion by 2025

US Dominates Global Market Landscape: >60% Market Share

Comprehensive Information on Ongoing Clinical Trials & Potential Drug Candidates

Global Microbiome Modulator Drugs in Clinical Pipeline: >80 Drug in Trials

Therapeutic Applications of Microbiome Immunology by Indication

Clinical Trial Studies Related to Fecal Microbiota Transplant: > 250 Clinical Trials

The scale and scope of microbiome research activity has now become one of the fastest growing areas in biology. The relevance that it has shown for the welfare of the society and pharmaceutical industry has led to the development of a transdisciplinary



environment that is however conducive to innovation with a mission to abolish the limitations in the pharmaceutical industry through excellence in microbiome research, awareness and outreach. Over the years now, gut microbiome is estimated to implicate success for the various immunotherapies.

Microbiome's role in immunology practices is to transform the world-class treatment into the medicine of today and tomorrow. It is highly recognizable that the healthcare issues that mankind is facing today is now bigger than any one solution. The treatment of certain diseases requires multiple options for the treatment and ultimately prevention. Therefore, the amalgamation of two different treatment paradigms i.e. microbiome and immunology are apparently delivering some medical benefits that millions of patients were in need for long period of time. The ways in which microbiome is understood and manipulated to serve the immunological aspects has given great interest to all the researchers.

Essential and usual concept of immunology depicts targeting the immune system of the body to provoke an immune response with huge impact but then unsuccessful implication of immunology therapies driven treatments led to exploration of several other basic concepts that could play an important role in boosting the immune system when combined. Looking forward, the microbiome community in the gut represented beneficial patterns with respect to further research. The area of microbiome research and its combination with immunological aspect for the disease treatment has produced a real excitement in the area of medical research and specifically microbiome research.

All over the world, the amalgamation of the two has been well accepted and appreciated by the patients, physicians and the clinicians. Investigation of all the working sides of microbiome and how it plays an important role in boosting the manipulated immune cells have recently started in large numbers as the technology available in the medical field allows to capture it accurately. To facilitate the microbiome and immunology community in order to extract the best and trending opportunities that are stemmed into the microbiome research, the experts from both the relevant disciplines are analyzing it through clinical researches and surveys. Further, the area is getting supported by 86 different clinical trials getting conducted in different countries.

'Global Human Microbiome Immunology Therapeutics Market & Clinical Trial Insight 2025' report summarizes the view of the wider opportunities that are associated microbiome community for the advancement of the scientific information regarding immunology. The science that is related with microbiome has high interdisciplinary and various opportunities that somehow have remained hidden in the medical world. It is



believed that the opportunities and all the desirable tangible benefits microbiome is capable of delivering when combined with immunology is large and needs coordinated and constructive approach. The call to the two different sectors i.e. microbiology and immunology is estimated to unlock the potential and promising benefits of microbiome. The approach leading to the extraction of advantages if properly embedded in the microbiome and immunology research, the future benefits will be huge



Contents

1. OVERVIEW OF MICROBIOME

- 1.1 Introduction to Microbiome
- 1.2 History & Evolution of Microbiome

2. ROLE OF MICROBIOME IN HUMAN BODY

3. MICROBIOME: VARIOUS FORMS

- 3.1 Gut Microbiome
- 3.2 Lung Microbiome
- 3.3 Skin Microbiome
- 3.4 Microbiome in Other Parts of the Body

4. MECHANISM OF MICROBIOME ACTIVITY

- 4.1 Nature of Immune Response
 - 4.1.1 Immunosuppressive Activity
 - 4.1.2 Immunostimulatory Activity
- 4.2 Messengers Involves in Microbiome Mechanism
 - 4.2.1 MAMPs/PAMPs
 - 4.2.2 Microbial Metabolites As Messengers
 - 4.2.3 Host Cytokines As Messengers
 - 4.2.4 Immune Cells As Messengers

5. TECHNOLOGICAL REQUIREMENT FOR MICROBIOTA

- 5.1 Technologies Used
 - 5.1.1 iChip
 - 5.1.2 Simulator of the Human Intestinal Microbial Ecosystem (SHIME)
 - 5.1.3 Gut-on-a-Chip System
 - 5.1.4 Colonic Stem Cell Construction
- 5.2 Harnessing & Engineering the Microbiome
 - 5.2.1 Additive Approaches
 - 5.2.2 Subtractive Approaches

6. NEED FOR MICROBIOME IMMUNOLOGY



7. THERAPEUTIC APPLICATIONS OF MICROBIOME IMMUNOLOGY

- 7.1 Microbiome Therapy
- 7.2 Precision Medicine
- 7.3 Drug discovery
- 7.4 Biomarkers & Therapy Optimization

8. HUMAN MICROBIOTA IN INFECTIOUS DISEASES

- 8.1 Infection with Clostridium Difficile
- 8.2 Infection with Helicobacter Pylori
- 8.3 Bacterial Vaginosis
- 8.4 Infection with HIV

9. THE HUMAN MICROBIOTA & LIVER DISEASES

- 9.1 Non-Alcoholic Fatty Liver Disease (NAFLD)
- 9.2 Alcoholic Liver Diseases (ALD)
- 9.3 Liver Fibrosis & Cirrhosis

10. THE HUMAN MICROBIOTA & METABOLIC DISORDERS

- 10.1 Obesity
- 10.2 Type 2 Diabetes

11. THE HUMAN MICROBIOTA & OTHER DISEASES

- 11.1 Microbiota & Allergic Diseases
- 11.2 Microbiota & Psychiatric Diseases

12. MICROBIOME IN IMMUNO ONCOLOGY

- 12.1 Role of Microbiome in Immuno Oncology
- 12.2 Microbiome Mechanism in Oncogenesis & Tumor Suppression

13. MICROBIOME APPLICATION BY CANCER TYPES

13.1 Gastric Cancer



- 13.2 Colorectal Cancer
- 13.3 Esophageal Cancer
- 13.4 Hepatocellular Carcinoma
- 13.5 Melanoma
- 13.6 Solid Tumors

14. INDUSTRIAL APPROACHES OF MICROBIOME THERAPY IN ONCOLOGY

- 14.1 Bacterial Approaches
 - 14.1.1 Fecal Microbiota Transplantation (FMT)
 - 14.1.2 Synthetic Bacteria
 - 14.1.3 Microbial Culture
- 14.2 Microbiome as Vaccine
- 14.3 Microbiome as Small Molecules
- 14.4 Microbiome Therapy using Phage Virus

15. GLOBAL HUMAN MICROBIOME MARKET ANALYSIS

- 15.1 Overview
- 15.2 Human Microbiome Market Segmentation
 - 15.2.1 Regional Segmentation
 - 15.2.2 Disease Based Segmentation
 - 15.2.3 Segmentation by Application

16. CLINICAL PIPELINE OF MICROBIOME BASED THERAPY

- 16.1 Microbiome Modulators in Clinical Trial
- 16.2 Cancer Related Clinical Trials
- 16.2.1 Preclinical & Discovery Phase
- 16.2.2 Active Clinical Trials
- 16.3 Clinical Trial Related To FMT
 - 16.3.1 Clinical Trial for Recurrent C. difficile
 - 16.3.2 Clinical Trial for Inflammatory Bowel Disease (IBD)
 - 16.3.3 Other FMT Related Clinical Trials

17. GLOBAL MICROBIOME MODULATORS CLINICAL PIPELINE BY COMPANY, INDICATION & PHASE

17.1 Research



- 17.2 Preclinical
- 17.3 Clinical
- 17.4 Phase-I
- 17.5 Phase-I/II
- 17.6 Phase-II
- 17.7 Phase-II/III
- 17.8 Phase-III

18. MARKETED MICROBIOME MODULATORS CLINICAL INSIGHT

- 18.1 Sodium Oligomannurarate Shanghai Green Valley Pharmaceutical
- 18.2 Miya-BM

19. GLOBAL MICROBIOME IMMUNOLOGY THERAPEUTICS MARKET GROWTH DRIVERS

20. MICROBIOME TECHNOLOGY - INVESTMENTS, ACQUISITIONS & COLLABORATIONS BY LEADING MICROBIOME COMPANIES

21. BLOCKADES IN THE MICROBIOME IMMUNOLOGY MARKET

- 21.1 Stable Engraftment
- 21.2 Development of Clinically Relevant Sensors
- 21.3 Robustness and Evolutionary Stability of Genetic Circuits
- 21.4 Regulation, Safety and Biocontainment

22. GLOBAL MICROBIOME IMMUNOLOGY MARKET FUTURE PANORAMA

23. COMPETITIVE LANDSCAPE

- 23.1 4D Pharma
- 23.2 AbbVie
- 23.3 AstraZeneca plc
- 23.4 Biocodex
- 23.5 Bristol Mayer Squibb
- 23.6 Corebiome/Diversigen
- 23.7 Elogi Bioscience
- 23.8 Enterome
- 23.9 Ferring Pharmaceuticals



- 23.10 Finch Therapeutics
- 23.11 Maat Pharma
- 23.12 Merck
- 23.13 Microbiome Therapeutics
- 23.14 Novartis
- 23.15 OpenBiome
- 23.16 Pfizer
- 23.17 Rebiotix
- 23.18 Second Genome
- 23.19 Seres Therapeutics
- 23.20 Symberix
- 23.21 Takeda Pharmaceuticals
- 23.22 Vedanta Bioscience



List Of Figures

LIST OF FIGURES

Figure	1-1:	Microbiome	Found	in	Our	Body	,
1 Iquic		IVII ODIOTIC	i ouiiu	111	Oui	Dogs	,

- Figure 1-2: Evolution of Microbiome in Medicinal Use
- Figure 2-1: Composition of Human Microbiota
- Figure 2-2: Roles of Microbiome in Human Body
- Figure 3-1: Different Types of Human Microbiome
- Figure 3-2: Factors Affecting the Development of the Gut Microbiome in Humans
- Figure 3-3: Study Linking Gut Microbiota & Food Sensitization at 1 year of Age, 2015
- Figure 4-1: Steps in Mechanism of Microbiome
- Figure 4-2: Types of Immune Response Produced by Microbiome
- Figure 4-3: Mechanism of Immunosuppressive Activity of Microbiome
- Figure 4-4: Processes Facilitating Immunostimulatory Effect of the Gut Microbiota
- Figure 4-5: Immunostimulatory Action of Microbiome by Increasing the Antigenicity
- Figure 4-6: Immunostimulatory Action of Microbiome via Adjuvanticity
- Figure 4-7: Immunostimulatory Action of Microbiome via Bystander T-cell Activation
- Figure 4-8: Messengers Involved in Mechanism of Microbiome Activity
- Figure 5-1: Technologies Used in Microbiota Immunotherapy
- Figure 5-2: New Methods for In-Vitro Simulation of Microbes
- Figure 5-3: Approaches in Harnessing & Engineering the Microbiome
- Figure 7-1: Therapeutic Applications of Microbiome
- Figure 8-1: Impact of Infectious Diseases in Human Microbiota
- Figure 8-2: Microbiome Imbalance Related Infections
- Figure 8-3: Mechanism of Microbiome against H. pylori Infection
- Figure 8-4: Management of H. pylori Infection using Single & Multi Strain Probiotic Microbiome
- Figure 8-5: Process of Vaginal Microbiota Transplantation (VMT)
- Figure 8-6: Mechanism of Different Microbiome therapeutics against HIV infection
- Figure 9-1: Hypothetical Pathway: Role of Gut Microbiota Dysbiosis in Liver Diseases
- Figure 9-2: Microbiome Related Liver Disorders
- Figure 9-3: Management of Non-Alcoholic Fatty Liver Disease using Probiotic Microbiome
- Figure 9-4: Management of Alcoholic Liver Disease using Probiotic Microbiome
- Figure 9-5: Management of Liver Fibrosis & Cirrhosis using Probiotic Microbiome
- Figure 10-1: Metabolic Disorders Related to Gut Microbiota
- Figure 10-2: Relation of Microbiome with the Metabolic Disorders
- Figure 10-3: Factors Responsible for Obesity



- Figure 10-4: Mechanism of Probiotics against Obesity
- Figure 10-5: Management of Obesity using Probiotic Microbiome
- Figure 10-6: Influence of Disturbed Gut Microbiome on Diabetes
- Figure 10-7: Management of Type 2 Diabetes using Probiotic Microbiome
- Figure 11-1: Allergic Diseases Influenced by Microbiome
- Figure 11-2: Management of Allergic Diseases using Microbiome Preparations
- Figure 11-3: Microbiome Associated Psychiatric Disorders
- Figure 11-4: Management of Psychiatric Disorders using Microbiome
- Figure 12-1: Microbiome at the Intersection between Physiology & Pathology in Cancer
- Figure 12-2: Microbiome Action in Tumor Formation vs. Tumor Suppression
- Figure 13-1: Microbiome Applications on Basis of Cancer Types
- Figure 13-2: Management of Colorectal Cancer using Microbiomes
- Figure 13-3: Anticancer Mechanism of Microbiome Metabolite (Butyrate)
- Figure 13-4: Microbiome of Normal Esophagus vs. GERD-Barrett's Esophagus
- Figure 13-5: Management of Esophageal Cancer using Microbiome
- Figure 13-6: Role of Disturbed Microbiome in Development of Hepatocellular Carcinoma
- Figure 14-1: Industrial Approaches of Microbiome Therapy in Oncology
- Figure 14-2: Number of Companies Involved in Different Anticancer Approaches of Microbiome, 2019
- Figure 14-3: Companies Involved in Different Anticancer Approaches of Microbiome (%), 2019
- Figure 14-4: Types of Bacterial Approaches in Microbiome Technology
- Figure 14-5: Number of Companies Involved in Different Bacterial Approaches, 2019
- Figure 14-6: Procedure of Fecal Microbiota Transplantation (FMT)
- Figure 14-7: Various Engineered Circuits of Synthetic Bacteria
- Figure 14-8: Applications of Phage in Cancer Biology & Treatment
- Figure 15-1: Global Human Microbiome Immunology Therapeutics Market Size (US\$ Million), 2018 to 2025
- Figure 15-2: Global Human Microbiome Market Size & FMT Market Size (US\$ Million), 2019
- Figure 15-3: Global Human Microbiome Market Segmentation
- Figure 15-4: Global Microbiome Therapeutic Market Share (%) US, Europe & Rest of World, 2019 & 2025
- Figure 15-5: USA Human Microbiome Market Size (US\$ Million), 2019 & 2025
- Figure 15-6: Europe Human Microbiome Market Size (US\$ Million), 2019 & 2025
- Figure 15-7: Global Human Microbiome Market Share by Diseases (%), 2025
- Figure 15-8: Global Human Microbiome Market by Application (%), 2019 & 2025
- Figure 16-1: Global Microbiome Modulator Drug Clinical Pipeline by Phase, 2020
- Figure 16-2: Global Microbiome Modulator Drug Clinical Pipeline by Country, 2020



- Figure 16-3: Global Microbiome Modulator Drug Clinical Pipeline by Drug Class, 2020
- Figure 16-4: Global Microbiome Modulator Drug Clinical Pipeline by Drug Company, 2020
- Figure 16-5: Global Microbiome Modulator Drug Clinical Pipeline by Indication, 2020
- Figure 16-6: Number of Microbiome-Based Cancer Therapeutics in Discovery &
- Preclinical Phase of Development, 2019
- Figure 16-7: Companies Conducting Discovery Program of Anticancer Microbiome
- Figure 16-8: Companies Conducting Preclinical Trials of Anticancer Microbiome
- Figure 16-9: Active Clinical Trials of Anticancer Microbiome
- Figure 16-10: Global Number of Clinical Trial Studies Related to Fecal Microbiota
- Transplant in Different Phases, 2020
- Figure 16-11: Global Fecal Microbiota Transplant in Different Phases of Clinical Trial (%), 2020
- Figure 16-12: Global Status of Active FMT Clinical Trials, 2020
- Figure 16-13: Global FMT Clinical Trial in Management of C. difficile Infection, 2020
- Figure 16-14: Global FMT Clinical Trial in Management of Inflammatory bowel
- Disease, 2020
- Figure 19-1: Drivers of Microbiome Immunotherapeutics
- Figure 20-1: MaaT Pharma Investment Received by Year (EUR/US\$ Million), 2015, 2016 & 2020
- Figure 20-2: Finch Therapeutics Investments Received by Year (US\$ Million), 2016 2019
- Figure 20-3: Rebiotix Investment Received by Year (US\$ Million), 2011, 2014 & 2017
- Figure 20-4: Enterome Investment Received by Year (EUR/US\$ Million), 2011,2012,
- 2014, 2016, 2017 & 2020
- Figure 20-5: Second Genome Investments by Year (US\$ Million), 2011, 2013 & 2016
- Figure 21-1: Challenges in the Path of Microbiome Immunotherapy Technology



I would like to order

Product name: Global Human Microbiome Immunology Therapeutics Market & Clinical Trial Insight 2025

Product link: https://marketpublishers.com/r/G806E39B85E8EN.html

Price: US\$ 3,000.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer

Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/G806E39B85E8EN.html

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:		
Last name:		
Email:		
Company:		
Address:		
City:		
Zip code:		
Country:		
Tel:		
Fax:		
Your message:		
	**All fields are required	
	Custumer signature	

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at https://marketpublishers.com/docs/terms.html

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970