

# Postgraduate Certificate

Probiotics, Prebiotics,  
Microbiota and Health





## Postgraduate Certificate

### Probiotics, Prebiotics, Microbiota and Health

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Credits: 8 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: <https://www.techitute.com/us/medicine/postgraduate-certificate/probiotics-prebiotics-microbiota-health>

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# 01

# Introduction

Scientific research in the field of microbiota has been booming in recent decades, aimed both at the study of its characteristics and its impact on our health.

The study of human microbiota opens the door to the knowledge of multiple diseases, especially the so-called functional diseases, with the microbiome being researcher's main workhorse.





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*This Postgraduate Certificate in Probiotics, Prebiotics, Microbiota and Health, will generate a sense of confidence in the performance of your profession, which will help you to grow personally and professionally"*

Numerous pieces of scientific evidence have implicated the intestinal microbiome and its metabolic potential in various pathological conditions in recent years, giving rise to new therapeutic strategies, to control and regulate this ecosystem. The study of this ecosystem is a field that is rapidly advancing scientifically, and it is universally accepted that to achieve an adequate state of health it is also necessary to have a "healthy" Microbiota.

Our microbiota undergoes changes as a consequence of the influence of multiple factors, diet, lifestyle, pharmacological treatments, etc., generating alterations in this bacterial ecosystem and the anomalous interaction that the organism could have with it. It is related to certain processes: allergies, acute and chronic intestinal diseases, obesity, metabolic syndrome, neurological diseases, dermatitis and other alterations in the dermis, and even some types of cancer.

This Postgraduate Certificate in Probiotics, Prebiotics, Microbiota and Health provides ease of access to information and the interest aroused among the general population on topics related to the microbiota, its eubiosis and dysbiosis, problems related to them, probiotics and prebiotics and the growing market launching new products with very specific strains for very specific problems and diseases, etc. this makes it necessary for health professionals to be up to date on all scientific advances in this regard to offer the consumer and/or patients more accurate information on the subject, guiding them to recover and maintain that bacterial eubiosis to keep a good state of health, in addition to collaborating in a positive way with the recommended medical treatment.

This training makes professionals in this field increase their capacity for success, which results in a better praxis and performance that will have a direct impact on the educational treatment, on the improvement of the educational system and on the social benefit for the whole community.

This **Postgraduate Certificate in Probiotics, Prebiotics, Microbiota and Health** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ Development of practical cases presented by experts in Probiotics, Prebiotics, Microbiota and Health
- ♦ The graphic, schematic, and practical contents provide students with scientific and practical information on the disciplines that are essential for professional practice
- ♦ Latest developments on Probiotics, Prebiotics, Microbiota and Health
- ♦ Contains practical exercises, where the process of self-assessment can be carried out to improve learning
- ♦ Special emphasis on innovative methodologies in Probiotics, Prebiotics, Microbiota and Microbiome.
- ♦ All of this will be complemented by theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments.
- ♦ Availability of content from any device, fixed or portable, with an Internet connection



*Update your knowledge through the Postgraduate Certificate in Probiotics, Prebiotics, Microbiota and Health"*

“

*This Postgraduate Certificate is the best investment you can make in the selection of a refresher program for two reasons: in addition to updating your knowledge in Probiotics, Prebiotics, Microbiota and Health, you will obtain a Postgraduate Certificate issued by TECH Global University"*

It includes, in its teaching staff, professionals belonging to the field of Probiotics, Prebiotics, Microbiota and Health, who pour into this program the experience of their work, in addition to recognized specialists belonging to reference societies and prestigious universities.

Thanks to its multimedia content, developed with the latest educational technology, it will allow the professional a situated and contextual learning, that is to say, a simulated environment that will provide an immersive learning, programmed to train in real situations.

The design of this program is based on Problem-Based Learning, by means of which the student must try to solve the different situations of professional practice that arise throughout the course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts in the field of Probiotics, Prebiotics, Microbiota and Health with extensive teaching experience.

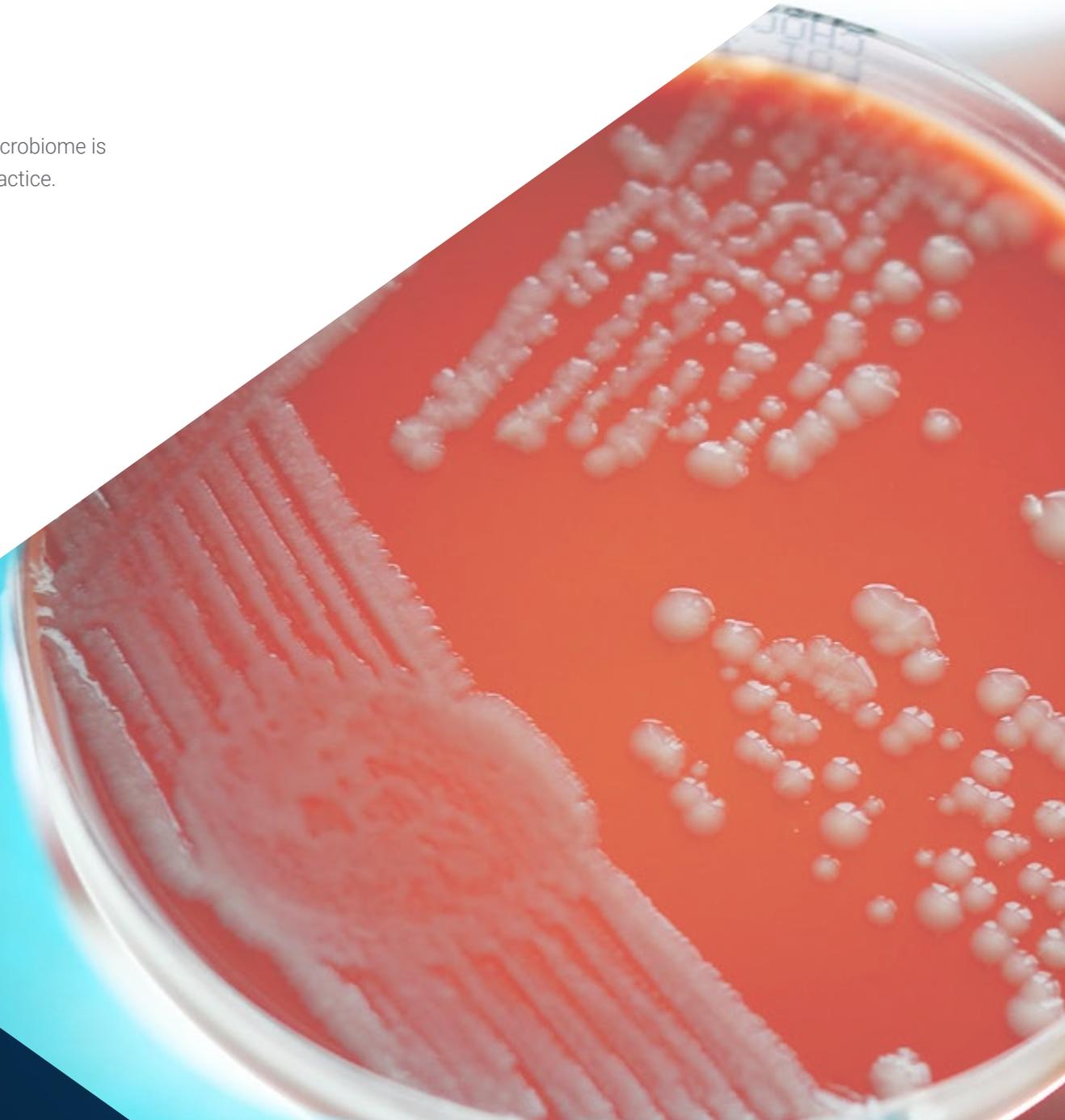
*Increase your decision-making confidence by updating your knowledge through this Postgraduate Certificate.*

*Make the most of the opportunity to learn about the latest advances in Probiotics, Prebiotics, Microbiota and Health and improve your patient care.*



# 02 Objectives

The Postgraduate Certificate in Probiotics, Prebiotics, Microbiota and Microbiome is oriented to facilitate the performance of the professional in their daily practice.



A close-up photograph of several petri dishes containing bacterial cultures on a red agar medium. The dishes are arranged in a row, with the one in the foreground being in sharp focus, showing distinct white, circular colonies. The background dishes are blurred. The image is partially obscured by a blue diagonal graphic element on the right side of the page.

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*This program will provide you with the skills to carry out your medical praxis with confidence and will help you to grow both personally and professionally”*



## General Objectives

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- This Postgraduate Certificate fulfills a need of today's society, a quality and up-to-date training that allows the use of microbiological therapy as a preventive or therapeutic tool for the maintenance of health.
- Offer a complete and wide vision of the current situation in the area of the Human Microbiota, in its widest sense, the importance of the balance of this Microbiota as a direct effect on our health, with the multiple factors that influence it positively and negatively.
- Argue with scientific evidence how the microbiota and its interaction with many non-digestive pathologies of autoimmune nature, or its relationship with immune system dysregulation, disease prevention and as a support to other medical treatments, is currently being given a privileged position.
- Promote work strategies based on the comprehensive approach of the patient as a reference model, not only focusing on the symptomatology of the specific pathology, but also looking at its interaction with the microbiota and how it may be influencing it.
- Encourage professional stimulation through continuing education and research





## Specific Objectives

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- Update and clarify general and key terms for a full understanding of the subject such as Microbiome, Metagenomics, Microbiota, Symbiosis, Dysbiosis, etc.
- Study the microbial communities that coexist in symbiosis with humans, learning more about their structure, functions and how these communities can be altered due to factors such as diet, lifestyle, etc.
- Delve into the knowledge of the Intestinal Microbiota as the main axis of the Human Microbiota its interrelation with the rest of the body, its study methods, and its applications in clinical practice, to maintain a good state of health
- Understand the relationship between intestinal pathologies: Small intestine bacterial overgrowth (SIBO), irritable bowel syndrome (IBS), Crohn's disease, etc. and intestinal dysbiosis. Learn how to manage strategies, in an up-to-date way, to treat different intestinal infections caused by viruses, bacteria, parasites, fungi, modulating the altered intestinal microbiota.
- Delve into the bidirectional relationship between Microbiota and neuroimmunological system, study in depth the gut-microbiota-brain axis and all the pathologies that are generated in its imbalance
- Acquire an in-depth knowledge of all the oral and respiratory structure, and the ecosystems that live in them, seeing how an alteration of these ecosystems has a direct relationship with many associated pathologies.
- Study the mechanisms by virtue of which Probiotics are considered to be preventive in the development of dental caries and periodontal diseases.
- Know how a negative modulation in our Microbiota can favor the appearance of food intolerances and allergies.
- Deepen knowledge of how drugs designed for humans can have a negative impact on the gut microbiota, in addition to the known impact of antibiotics.
- Know in depth the safety profile of Probiotics given that, although their use has spread in recent years thanks to their proven efficacy, both for the treatment and prevention of certain diseases, this does not exempt them from generating adverse effects and potential risks.



*Update your knowledge through the Postgraduate Certificate in Probiotics, Prebiotics, Microbiota and Health"*

03

# Course Management

The program's teaching staff includes leading specialists in Probiotics, Prebiotics, Microbiota and Health who bring the experience of their work to this training program. In addition, other specialists of recognized prestige participate in its design and elaboration, completing the program in an interdisciplinary manner.





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*Learn the latest advances in procedures in Probiotics, Prebiotics, Microbiota and Health from leading professionals"*

## International Guest Director

Dr. Harry Sokol is internationally recognized in the field of **Gastroenterology** for his research on the **gut microbiota**. With more than 2 decades of experience, he has established himself as a true scientific authority thanks to his numerous studies on the role of **microorganisms in the human body** and their impact on **chronic inflammatory bowel diseases**. In particular, his work has revolutionized medical understanding of this organ, often referred to as the «**second brain**.»

Among Dr. Sokol's contributions, he and his team have opened a new line of advances on the bacterium **Faecalibacterium prausnitzii**. In turn, these studies have led to crucial discoveries about its **anti-inflammatory effects**, opening the door to **revolutionary treatments**.

In addition, the expert is distinguished by his **commitment to the dissemination of knowledge**, whether by teaching academic programs at the Sorbonne University or by publishing works such as the **comic book** *The Extraordinary Powers of the Belly*. His scientific publications appear continuously in **world-renowned journals** and he is invited to **specialized congresses**. At the same time, he carries out his clinical work at the **Saint-Antoine Hospital** (AP-HP/University Hospital Federation IMPEC/Sorbonne University), one of the most renowned hospitals in Europe.

On the other hand, Dr. Sokol began his **medical studies** at Paris Cité University, showing early on a strong interest in **health research**. A chance meeting with the eminent Professor Philippe Marteau led him to **Gastroenterology** and the enigmas of the **Intestinal Microbiota**. Throughout his career, he also broadened his horizons by training in the United States, at Harvard University, where he shared experiences with **leading scientists**. Upon his return to France, he founded his **own team** where he researches on **Fecal Transplantation**, offering state-of-the-art therapeutic innovations.



## Dr. Sokol, Harry

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- Director of Microbiota, Gut and Inflammation at Sorbonne University, Paris, France
- Specialist Physician at the Gastroenterology Department of the Saint-Antoine Hospital (AP-HP), Paris, France
- Group Leader at the Institut Micalis (INRA)
- Coordinator of the Center of Microbiome Medicine of Paris FHU
- Founder of the pharmaceutical company Exeliom Biosciences (Nextbiotix)
- President of the Fecal Microbiota Transplantation Group
- Medical Specialist in different hospitals in Paris
- Doctorate in Microbiology at the Université Paris-Sud
- Postdoctoral Fellowship at the Massachusetts General Hospital, Harvard University Medical School
- Degree in Medicine, Hepatology and Gastroenterology at Université Paris Cité



*Thanks to TECH you will be able to learn with the best professionals in the world"*

## Guest Directors



### Dr. Sánchez Romero, María Isabel

- ♦ Area Specialist in the Microbiology Department of the Puerta de Hierro University Hospital, Madrid.
- ♦ Doctor in Medicine and Surgery from the University of Salamanca (2003) with the qualification of outstanding cum laude
- ♦ Degree in Medicine and Surgery from the University of Salamanca.
- ♦ Medical Specialist in Clinical Microbiology and Parasitology
- ♦ Member of the Spanish Society of Infectious Diseases and Clinical Microbiology.
- ♦ Technical Secretary of the Madrid Society of Clinical Microbiology



### Dr. Portero, María Francisca

- ♦ Acting Head of the Microbiology Department of the Puerta de Hierro University Hospital, Madrid.
- ♦ Doctorate in Medicine from the Autonomous University Madrid
- ♦ Degree in Medicine and Surgery from the Autonomous University of Madrid.
- ♦ Specialist in Clinical Microbiology and Parasitology, Puerta de Hierro University Hospital, Madrid.
- ♦ Postgraduate in Clinical Management by Gaspar Casal Foundation.

## Co-Direction



### Ms. Fernández Montalvo, María Ángeles

- Degree in Biochemistry from the University of Valencia
- Specialist Degree in Nutrition, Dietetics, and Diet Therapy
- Expert in Microbiological Food Analysis
- Expert in Nutrition, Food, and Cancer. Prevention and Treatment.
- Expert in Vegetarian, Clinical, and Sports Nutrition
- Specialist in food intolerances and the study of the intestinal microbiota.
- Numerous courses on Intestinal microbiota, methods of analysis, and applications
- Diploma in Natural and Orthomolecular Medicine
- Expert in the current use of Nutricosmetics and Nutraceuticals in general.
- Expert in point-of-sale management in Pharmacies and Parapharmacies.
- Member of the Spanish Society of Probiotics and Prebiotics (SEPyP).
- Member of the Spanish Society of Dietetics (SEDCA)
- Member of the Spanish Society of Nutrition (SEÑ)

## Professors

### Ms. Alarcón Cavero, Teresa

- ♦ Specialist in the Microbiology Department at the La Princesa University Hospital.
- ♦ Degree in Biological Sciences with a major in Fundamental Biology from the Complutense University of Madrid.
- ♦ Master's Degree in Medical Microbiology from the Complutense University of Madrid.
- ♦ Head of Group 52 of the Research Institute of the La Princesa Hospital.

### Dr. Muñoz Algarra, María

- ♦ Area Specialist in the Microbiology Department of the Puerta de Hierro Majadahonda University Hospital, Madrid.
- ♦ Head of Patient Safety of the Microbiology Service in the H.U. Puerto de Hierro Hospital Majadahonda
- ♦ Doctorate in Pharmacy from the Complutense University of Madrid.
- ♦ Degree in Pharmacy from the University of Valencia
- ♦ Teaching collaborator at the School of Medicine in the subject of Microbiology at the Autonomous University of Madrid

### Dr. López Dosil, Marcos

- ♦ Specialist Physician of the Microbiology and Parasitology Department of the Hospital de Móstoles
- ♦ Degree in Medicine from the University of Santiago de Compostela
- ♦ Master's Degree in Infectious Diseases and Antimicrobial Treatment from CEU Cardenal Herrera University
- ♦ Master's Degree in Tropical and Health Medicine from the Autonomous University of Madrid
- ♦ Expert in Tropical Medicine from the Autonomous University Madrid



**Anel Pedroche, Jorge**

- ♦ Facultative Area Specialist. Microbiology Department. Puerta de Hierro University Hospital.
- ♦ Degree in Pharmacy from the Complutense University of Madrid.
- ♦ Course in Interactive Sessions on Hospital Antibiotherapy by MSD
- ♦ Updating course on infection in hematologic patients by Puerta del Hierro Hospital.
- ♦ Attendance at the XXII Congress of the Spanish Society of Infectious Diseases and Clinical Microbiology.

**Dr. Méndez García, Celia**

- ♦ Doctorate in Microbiology from the University of Oviedo.
- ♦ Research at Novartis Laboratories (Boston)

**Narbona López, Eduardo**

- ♦ Professor of Pediatrics, University of Granada, Spain.
- ♦ Neonatal Unit, San Cecilio University Hospital, Madrid.

**Dr. Rioseras de Bustos, Beatriz**

- ♦ Degree in Biology, University of Oviedo
- ♦ Master's Degree in Neuroscience Research. University of Oviedo
- ♦ Doctorate from the University of Oviedo. "Streptomyces development: regulation and industrial applications"
- ♦ Publications in the field of microbiology
- ♦ Participation in various conferences in the field of microbiology.
- ♦ Immunology Resident at HUCA

**Ms. Rodríguez Fernández, Carolina**

- ♦ Degree in Biology from the University of Oviedo

**Uberos Fernández, José**

- ♦ Associate Professor of Pediatrics, University of Granada
- ♦ Assistant Professor. Faculty of Medicine. University of Granada
- ♦ Neonatal Intensive Care Unit Clinical Assistant. San Cecilio Clinical Hospital, Granada (Spain)
- ♦ Vocal Bioethics Research Committee of the Province of Granada (Spain)
- ♦ Coeditor of the Signs and Symptoms Journal
- ♦ Professor Antonio Galdo Award. Society of Pediatrics of Eastern Andalusia. For the article entitled: Analysis of nutritional intake in very low birth weight infants and its impact on the severity of bronchopulmonary dysplasia and other comorbidities
- ♦ Editor of the Journal of the Pediatric Society of Eastern Andalusia (Bol. SPAO)
- ♦ President of the Scientific Committee of the XVIII Congress of Pediatric Societies of Eastern Andalusia, Extremadura, and Western Spain. Granada
- ♦ Member of the Organizing Committee of the XIV Congress of the Spanish Society of Adolescent Medicine, Granada
- ♦ Member of the Organizing Committee of the XIV Congress of the Spanish Society of Adolescent Medicine.
- ♦ Spanish Secretary of the XX Congress of Social Pediatrics, Granada

**Ms. Álvarez García, Verónica**

- ♦ Degree in Medicine
- ♦ Digestive system specialist at the Central Hospital of Asturias (HUCA).

**Dr. Alonso Arias, Rebeca**

- ♦ Degree in Biology from the University of Oviedo
- ♦ Doctorate in Biological Sciences from the Complutense University of Madrid.
- ♦ Specialist Immunology Physician at the Central University Hospital of Asturias.
- ♦ Heads the Immunosenescence research group of the Central University Hospital of Asturias Immunology Service.
- ♦ Numerous publications in international scientific journals
- ♦ Research work on the association between the microbiota and the immune system
- ♦ 1st National Award for Research in Sports Medicine (2 occasions)

**Ms. Bueno García, Eva**

- ♦ Researcher at the Immunology Department of the Central University Hospital of Asturias.

**Fernández Madera, Juan**

- ♦ Degree in Medicine
- ♦ Specialist in Allergology and Clinical Immunology
- ♦ Specialist in Sports Medicine

**Dr. Gabaldon Estevani, Toni**

- ♦ Dr. in Biology, researcher at Centre for Genomic Regulation | CRG - Bioinformatics and Genomics
- ♦ ICREA Research Professor and Group Leader of the Comparative Genomics Laboratory
- ♦ Co-Founder and Scientific Advisor (CSO) Microomics SL

**Dr. Solís Sánchez, Gonzalo**

- ♦ Neonatologist of the Central University Hospital of Asturias (HUCA). Researcher, Associate Professor of the University of Oviedo

**Dr. López López, Aranzazu**

- ♦ PhD in Biological Sciences. Researcher in oral microbiology at FISABIO foundation
- ♦ Public Health Research Center of Valencia

**Ms. Suárez Rodríguez, Marta**

- ♦ Neonatologist of the Central University Hospital of Asturias (HUCA)
- ♦ Researcher and Professor of the Professional Master's Degree in Early Care and the Professional Master's Degree in Critical Care Nursing at the University of Oviedo and other training courses.

**Ms. Verdú López, Patricia**

- ♦ 2015 - 2016: Professional Master's Degree in Esthetic and Anti-Aging Medicine at the Complutense University of Madrid
- ♦ 2007-2009: acquisition of research proficiency, PhD courses in "Advances in Traumatology, Sports Medicine, and Wound Care", "Advances in Asthma and Allergies" at the University of Las Palmas of Gran Canaria
- ♦ 2005 - 2009: Specialty of Allergology at the University Hospital Dr. Negrín in Las Palmas of Gran Canaria
- ♦ 1998 - 2004: Degree in Medicine from the University of Oviedo

**Dr. Gonzalez Rodríguez, Silvia P**

- ♦ Doctor of Medicine and Surgery, specialized in Gynecology
- ♦ Medical Subdirector
- ♦ Research Coordinator and Clinical Chief of the Menopause and Osteoporosis Unit at the Velázquez Medical Cabinet (Madrid).



**Dr. Lombó Burgos, Felipe**

- ◆ Doctorate in Biology from the University of Oviedo and full professor at the University of Oviedo.
- ◆ Research Unit “Biotechnology in Nutraceuticals and Bioactive Compounds-BIONUC”
- ◆ Area of Microbiology, Department of Functional Biology. Faculty of Medicine, University of Oviedo.

**López Vázquez, Antonio**

- ◆ Specialist in Immunology
- ◆ Central University Hospital of Asturias

**Dr. Lopez Martinez, Rocio**

- ◆ Degree in Biochemistry from the University of Murcia
- ◆ Professional Master's Degree in Bioinformatics and Biostatistics from the Catalan Open University (UOC) and the University of Barcelona
- ◆ Resident Internal Biologist of Clinical Immunology at the Central University Hospital of Asturias

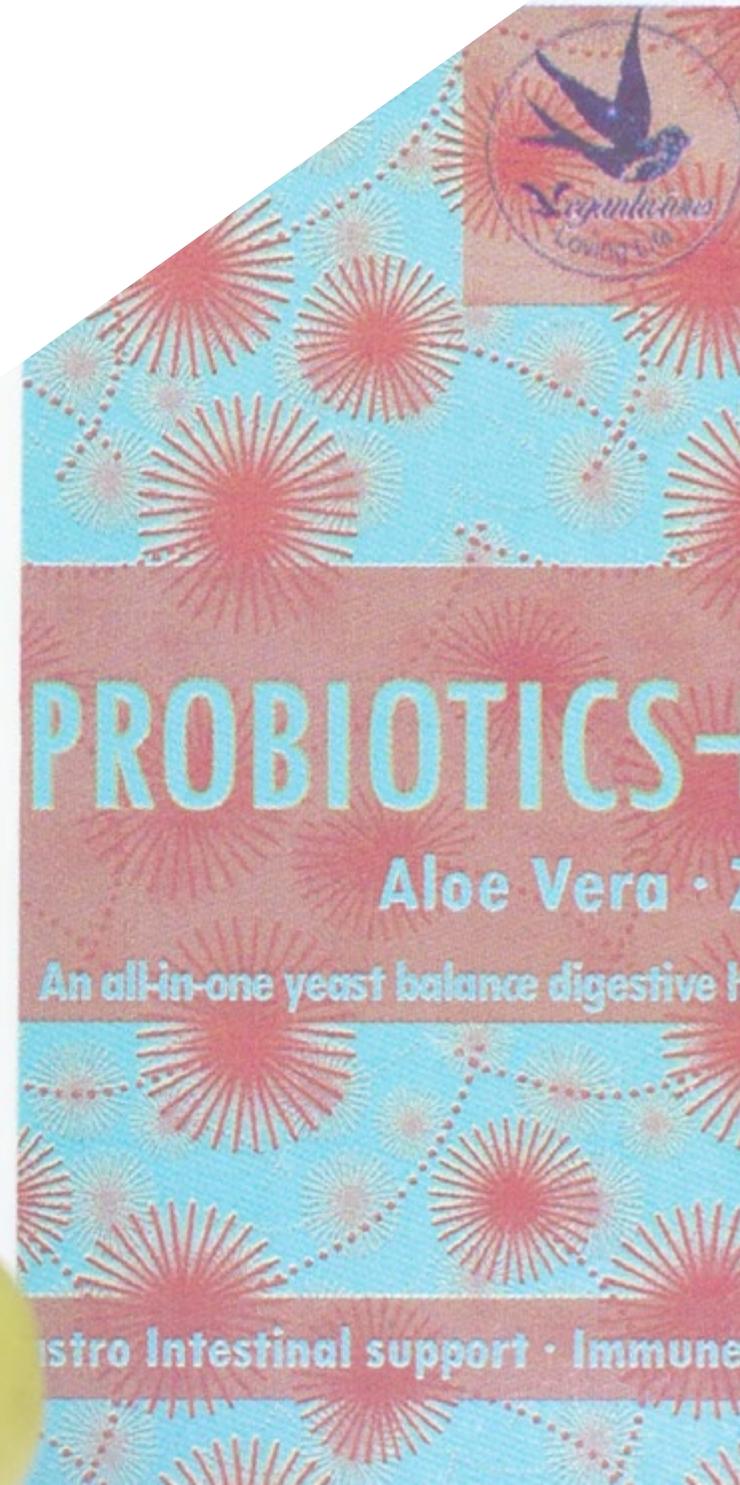
**Losa Domínguez, Fernando**

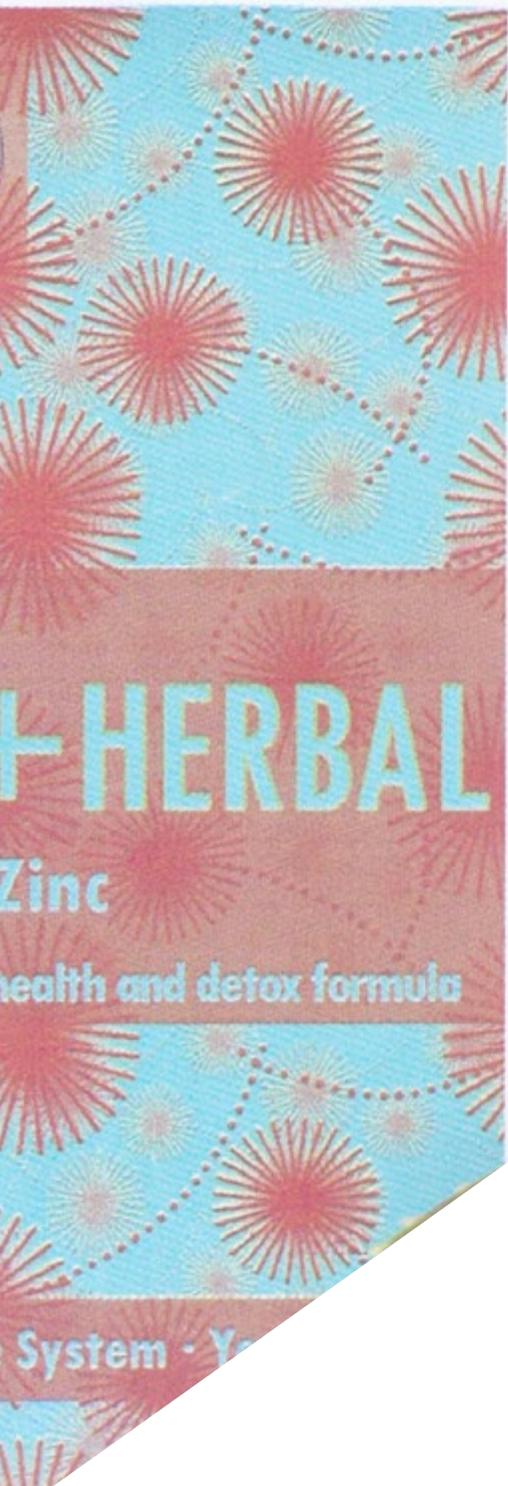
- ◆ Obstetrician-Gynecologist and Maternologist
- ◆ Expert in Menopause certified by the AEEM (Spanish Association for the Study of Menopause).
- ◆ Expert in Gynecoesthetics from the University of Barcelona.

04

# Structure and Content

The structure of the contents has been designed by a team of professionals from the best educational centers, universities, and companies in the national territory, aware of the relevance of current specialization in order to intervene in the training and support of students, and committed to quality teaching through New Educational Technologies.





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This **Postgraduate Certificate in Probiotics, Prebiotics, Microbiota and Health** contains the most complete and up-to-date scientific program on the market”

## Module 1. Probiotics, Prebiotics, Microbiota, and Health

- 1.1. Probiotics: Definition, History, Mechanisms of Action
- 1.2. Prebiotics: Definition, Types of Prebiotics (Starch, Inulin, FOS Oligosaccharides), Mechanisms of Action
- 1.3. Clinical Applications of Probiotics and Prebiotics in Gastroenterology
- 1.4. Clinical Applications of Endocrinology and Cardiovascular Disorders
- 1.5. Clinical Applications of Probiotics and Prebiotics in Urology
- 1.6. Clinical Applications of Probiotics and Prebiotics in Gynecology
- 1.7. Clinical Applications of Probiotics and Prebiotics in Immunology: Autoimmunity, Pulmonology, Vaccines
- 1.8. Clinical Applications of Probiotics and Prebiotics in Nutritional Diseases. Obesity and Eating Disorders. Metabolism, Malnutrition, and Malabsorption of Nutrients
- 1.9. Clinical Applications of Probiotics and Prebiotics in Neurological Diseases. Mental Health. Old Age.
- 1.10. Clinical Applications of Probiotics and Prebiotics in Critically Ill Patients. Cancer
- 1.11. Dairy Products as a Natural Source of Probiotics and Prebiotics. Fermented Milk.
- 1.12. Safety and Legislation in the Use of Probiotics





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*A unique, key, and decisive training experience to boost your professional development”*

# 05 Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.



“

*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## At TECH, we use the Case Method

What should a professional do in a given situation? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

*With TECH you will experience a way of learning that is shaking the foundations of traditional universities around the world.*



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, trying to recreate the real conditions in the physician's professional practice.

“

*Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method.*

The effectiveness of the method is justified by four fundamental achievements:

1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.



## Relearning Methodology

At TECH we enhance the Harvard case method with the best 100% online teaching methodology available: Relearning.

Our University is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, which represent a real revolution with respect to simply studying and analyzing cases.



*The physician will learn through real cases and by solving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.*

At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology we have trained more than 250,000 physicians with unprecedented success, in all clinical specialties regardless of the surgical load. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

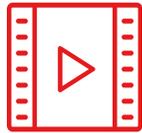
*Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.*

In our program, learning is not a linear process, but rather a spiral (we learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by our learning system is 8.01, according to the highest international standards.



This program offers the best educational material, prepared with professionals in mind:



#### Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then adapted in audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high-quality pieces in each and every one of the materials that are made available to the student.



#### Surgical Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.



#### Interactive Summaries

The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

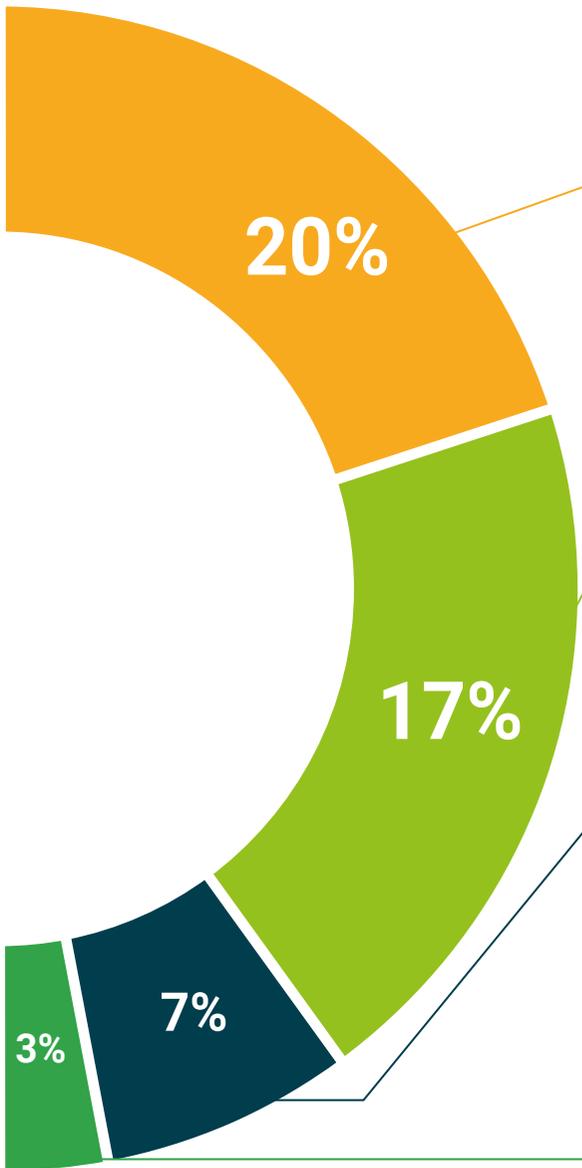
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





**Expert-Led Case Studies and Case Analysis**

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



**Testing & Retesting**

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



**Classes**

There is scientific evidence on the usefulness of learning by observing experts. The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



**Quick Action Guides**

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.



06

# Certificate

The Postgraduate Certificate in Probiotics, Prebiotics, Microbiota and Health guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.



“

*Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork”*

This program will allow you to obtain your **Postgraduate Certificate in Probiotics, Prebiotics, Microbiota and Health** endorsed by **TECH Global University**, the world's largest online university.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra (*official bulletin*). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Probiotics, Prebiotics, Microbiota and Health**

Modality: **online**

Duration: **6 weeks**

Accreditation: **8 ECTS**



\*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH Global University will make the necessary arrangements to obtain it, at an additional cost.

future  
health confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present  
development language  
virtual classroom



## Postgraduate Certificate

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Microbiota and Health

- » Modality: online
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Probiotics, Prebiotics,  
Microbiota and Health

