

# Postgraduate Diploma Skin Microbiota





## Postgraduate Diploma Skin Microbiota

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Accreditation: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtitute.com/us/physiotherapy/postgraduate-diploma/postgraduate-diploma-skin-microbiota](http://www.techtitute.com/us/physiotherapy/postgraduate-diploma/postgraduate-diploma-skin-microbiota)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Course Management

---

*p. 12*

04

Structure and Content

---

*p. 24*

05

Methodology

---

*p. 28*

06

Certificate

---

*p. 36*

# 01

# Introduction

In recent years there has been a growing interest in better understanding the interaction between the microbiota and the skin. In this sense, research has focused on developing probiotic therapies and treatments aimed at improving skin health. These advances influence the daily activity of professionals such as physiotherapists, and that is why TECH has oriented this 100% online program to provide a complete update on the progress in Skin Microbiota. To achieve this goal successfully, the excellent teaching team that integrates this degree has developed a rigorous syllabus based on the latest scientific evidence and the best teaching material of the current academic scene.



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*A 100% online university program that offers you the most complete update on the immune system, the skin and the health of the microbiome”*

Thanks to the impulse in recent years of studies on the Microbiota of the human skin, professionals from various specialties have achieved a much deeper knowledge in this field. At the same time, the use of probiotic therapies to help restore a healthy balance in the skin microbiota of patients has been consolidated.

In this context, the physiotherapist currently has much more rigorous and accurate information in this field that allows them to develop much more complete therapies and to carry out an interdisciplinary collaboration with other specialists such as dermatologists. This is how this 6-month Postgraduate Diploma in Skin Microbiota was created.

A program that will allow the graduate to obtain, during 540 teaching hours, the most effective update in Microbiome, metagenomics, the immune system and the most recent lines of research. Likewise, to achieve this objective, this academic institution provides numerous additional didactic material, where the latest technology applicable to the academic field has been used.

In addition, this program becomes even more attractive with the Relearning method, based on the continuous reiteration of the key content. Therefore, with this system, the physiotherapist will be able to consolidate the concepts in a simple way and reduce the long hours of study and memorization.

A unique opportunity for updating through a quality and flexible university proposal. The student only needs a digital device with an Internet connection to visualize, at any time of the day, the syllabus. Undoubtedly, an ideal option to make compatible with the most demanding responsibilities.

Also, the program stands out for having in its teaching staff an outstanding International Guest Director. This specialist is in charge of a series of rigorous Masterclasses with which students will be able to update their skills and integrate innovations in the Human Microbiota in the practice of Physiotherapy.

This **Postgraduate Diploma in Skin Microbiota** contains the most complete and up-to-date scientific program on the market. The most important features include:

- The development of practical cases presented by experts in Human Microbiota
- The graphic, schematic and eminently practical contents with which it is conceived gather scientific and practical information on those disciplines that are indispensable for professional practice
- Practical exercises where the self-assessment process can be carried out to improve learning
- Its special emphasis on innovative methodologies
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Content that is accessible from any fixed or portable device with an Internet connection



*The exclusive Masterclasses of this program are taught by a distinguished International Guest Director, specialized in the study of the Human Microbiota”*

“

*Increase your skills to manage skin conditions and the implementation of specific measures to promote healing”*

The program's teaching staff includes professionals from the field who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive education programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise during the course. For this purpose, students will be assisted by an innovative interactive video system created by renowned experts in the field of educational coaching with extensive experience.

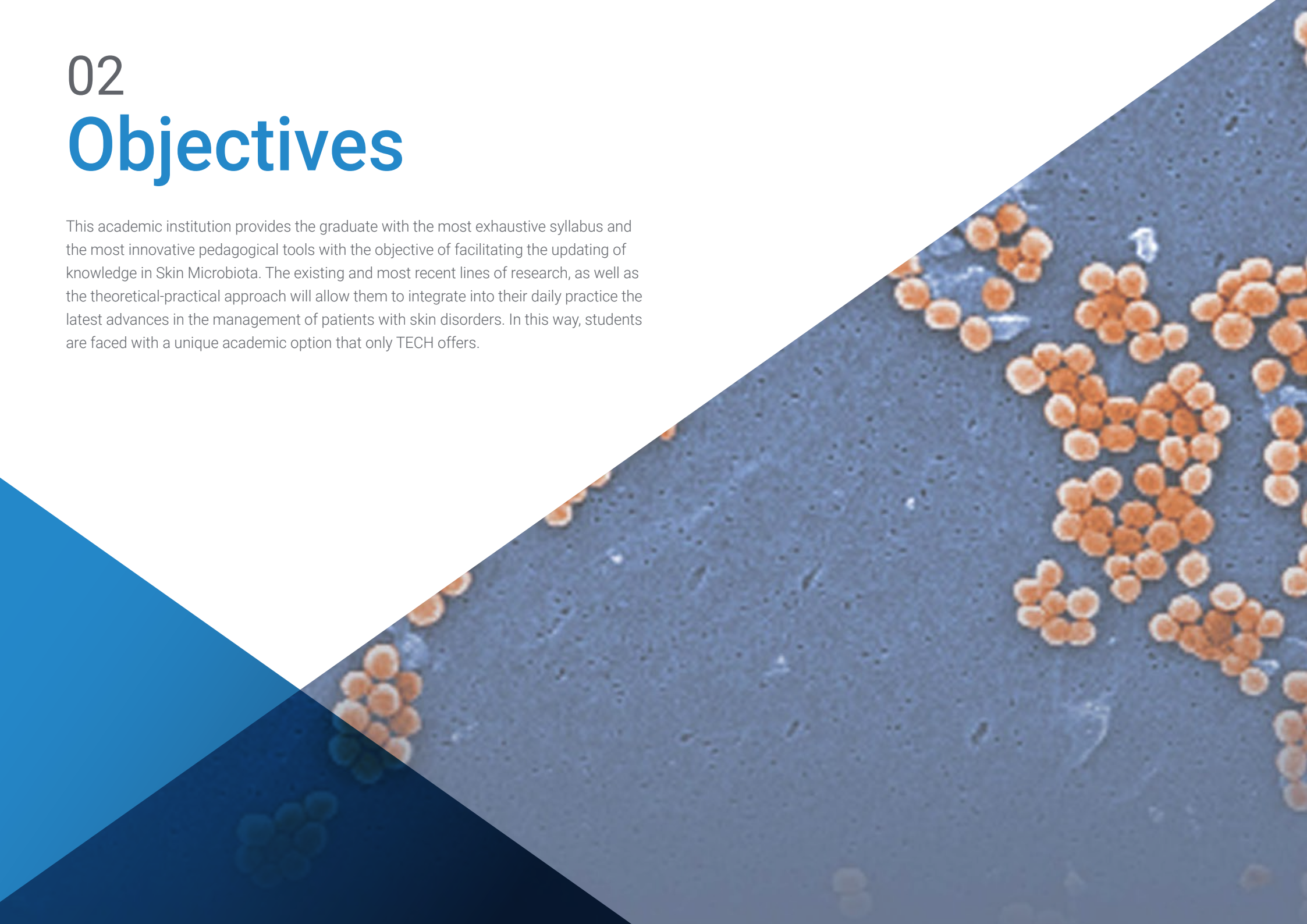
*Access, without time limits, the extensive virtual library that makes up this university proposal.*

*A flexible academic option that adapts to the real needs of physical therapists.*



# 02 Objectives

This academic institution provides the graduate with the most exhaustive syllabus and the most innovative pedagogical tools with the objective of facilitating the updating of knowledge in Skin Microbiota. The existing and most recent lines of research, as well as the theoretical-practical approach will allow them to integrate into their daily practice the latest advances in the management of patients with skin disorders. In this way, students are faced with a unique academic option that only TECH offers.





“

*The clinical case studies of this program will facilitate your update in Skin Microbiota and the management of patients with skin pathologies”*



## General Objectives

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- ♦ 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 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 is currently being given a privileged position, of an autoimmune nature or its relationship with the dysregulation of the immune system, prevention of diseases and as a support to other treatments in the daily practice of the professional
- ♦ Promote work strategies based on the integral 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 continuous learning and research



*An academic option that will lead you to be aware of the factors that regulate the type of bacterial flora on the skin"*





## Specific Objectives

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### Module 1. Skin Microbiota

- ♦ Study the factors that regulate the type of bacterial flora in the skin
- ♦ Know the methods of approach to triggered skin diseases

### Module 2. Microbiota. Microbiome. Metagenomics

- ♦ Update and clarify general and key terms for a full understanding of the subject such as Microbiome, Metagenomics, Microbiota, Symbiosis, Dysbiosis
- ♦ Enhance knowledge of how drugs designed for humans can have a negative impact on the gut Microbiota, in addition to the known impact of antibiotics

### Module 3. Microbiota and Immune System

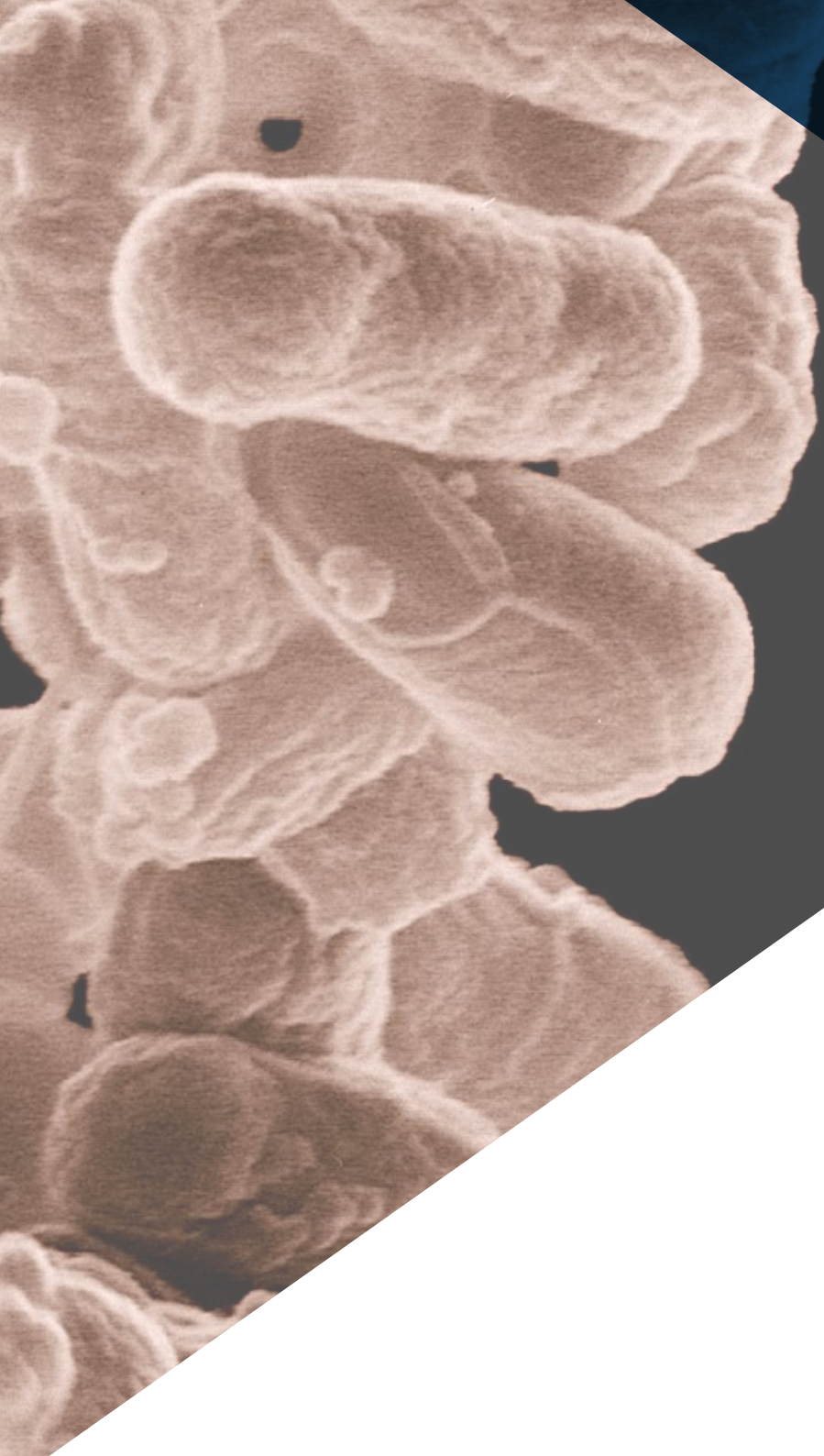
- ♦ Delve into the bidirectional relationship between Microbiota and neuroimmunological system and study in depth the intestine-Microbiota-brain axis and all the pathologies that are generated in its imbalance
- ♦ Analyze the role of nutrition and lifestyle with the interaction between the immune system and Microbiota

# 03

## Course Management

TECH has brought together in this Postgraduate Diploma a team of top professionals with experience in the study of the Microbiota, Microbiology and Parasitology. Their extensive background in this field has been decisive for their inclusion in this program, as well as their proximity, since in this way the graduate will get a complete update in the field of Skin Microbiota from the hand of real specialists. In addition, given their proximity, students will be able to resolve any doubts they may have about the content of this university proposal.





“

*An excellent team of experts in Microbiology brings you closer to the most recent scientific evidence on the approach to skin microbiota alterations”*

## International Guest Director

Harry Sokol, M.D. is internationally recognized in the field of Gastroenterology for his research on Intestinal 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.

In addition, Dr. Sokol began his medical studies at the 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 specializing 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 investigates 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
- PhD in Microbiology at the Université Paris-Sud
- Postdoctoral stay 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



### **Ms. Sánchez Romero, María Isabel**

- ♦ Area Specialist in the Microbiology Department of the Puerta de Hierro Majadahonda University Hospital, Madrid
- ♦ PhD 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 Service at the Puerta de Hierro Majadahonda University Hospital
- ♦ Specialist in Microbiology and Clinical Parasitology at the Puerta de Hierro University Hospital
- ♦ Doctorate in Medicine from the Autonomous University Madrid
- ♦ Postgraduate in Clinical Management by Gaspar Casal Foundation
- ♦ Research stay at the Presbyterian Hospital of Pittsburg through a FISS scholarship





### **Dr. Alarcón Cavero, Teresa**

- Biologist Specialist in Microbiology, Princesa University Hospital
- Head of Group 52 of the Research Institute of the La Princesa 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



### **Dr. Muñoz Algarra, María**

- Head of Patient Safety at the Microbiology Department of the Puerta de Hierro Majadahonda University Hospital
- Area Specialist in the Microbiology Department of the Puerta de Hierro Majadahonda University Hospital, Madrid
- Collaborator Department of Preventive Medicine and Public Health and Microbiology Autonomous University of Madrid
- Doctorate in Pharmacy from the Complutense University of Madrid



### Dr. López Dosil, Marcos

- Area Specialist in Microbiology and Parasitology at San Carlos Clinical University Hospital
- Specialist Physician of the Microbiology and Parasitology Department of the Hospital de Móstoles
- Master's Degree in Infectious Diseases and Antimicrobial Treatment from CEU Cardinal 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



### Dr. Anel Pedroche, Jorge

- Facultative Area Specialist. Microbiology Department, Puerta de Hierro University Hospital, Majadahonda, Spain
- 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

## Management



### **Ms. Fernández Montalvo, María Ángeles**

- Head of Naintmed- Integrative Nutrition and Medicine
- Director of the Master's Degree in Human Microbiota at CEU University
- Parapharmacy Manager, Nutrition and Natural Medicine professional at Natural Life Parapharmacy
- Degree in Biochemistry from the University of Valencia
- Diploma in Natural and Orthomolecular Medicine
- Postgraduate in Food, Nutrition and Cancer: prevention and treatment
- Master's Degree in Integrative Medicine from CEU University
- Specialist Degree in Nutrition, Dietetics and Diet Therapy
- Expert in Vegetarian, Clinical, and Sports Nutrition
- Expert in the current use of Nutricosmetics and Nutraceuticals in general

## Professors

### Dr. Rioseras de Bustos, Beatriz

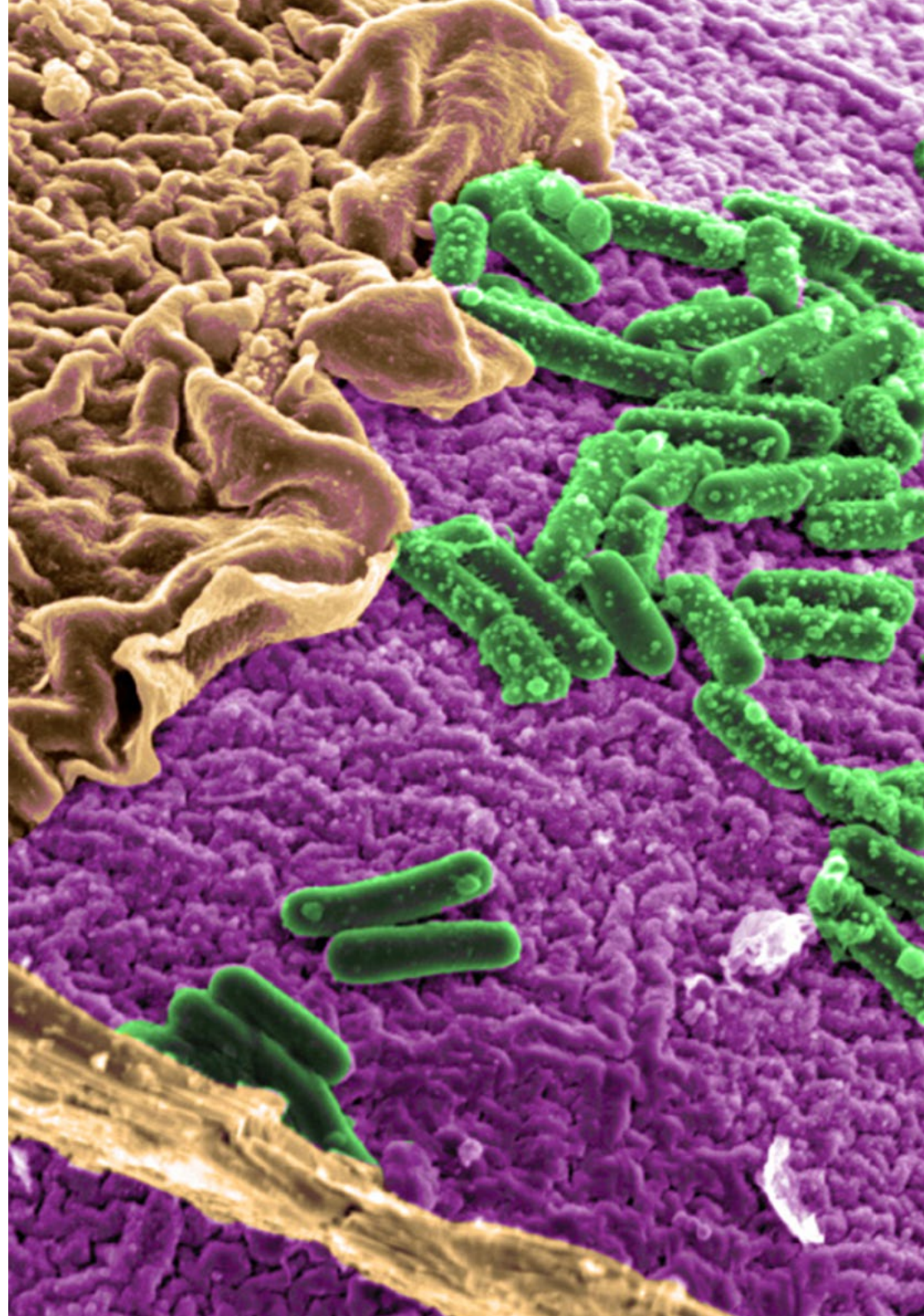
- ◆ Microbiologist and renowned researcher
- ◆ Resident in immunology at HUCA
- ◆ Member of the Biotechnology of Nutraceuticals and Compounds Research Group
- ◆ Bioactives (Bionuc) of the University of Oviedo
- ◆ Member of the Microbiology Area of the Department of Functional Biology
- ◆ Residency in the Southern Denmark University
- ◆ Doctorate in Microbiology from the University of Oviedo
- ◆ Master's Degree in Neuroscience Research from the University of Oviedo

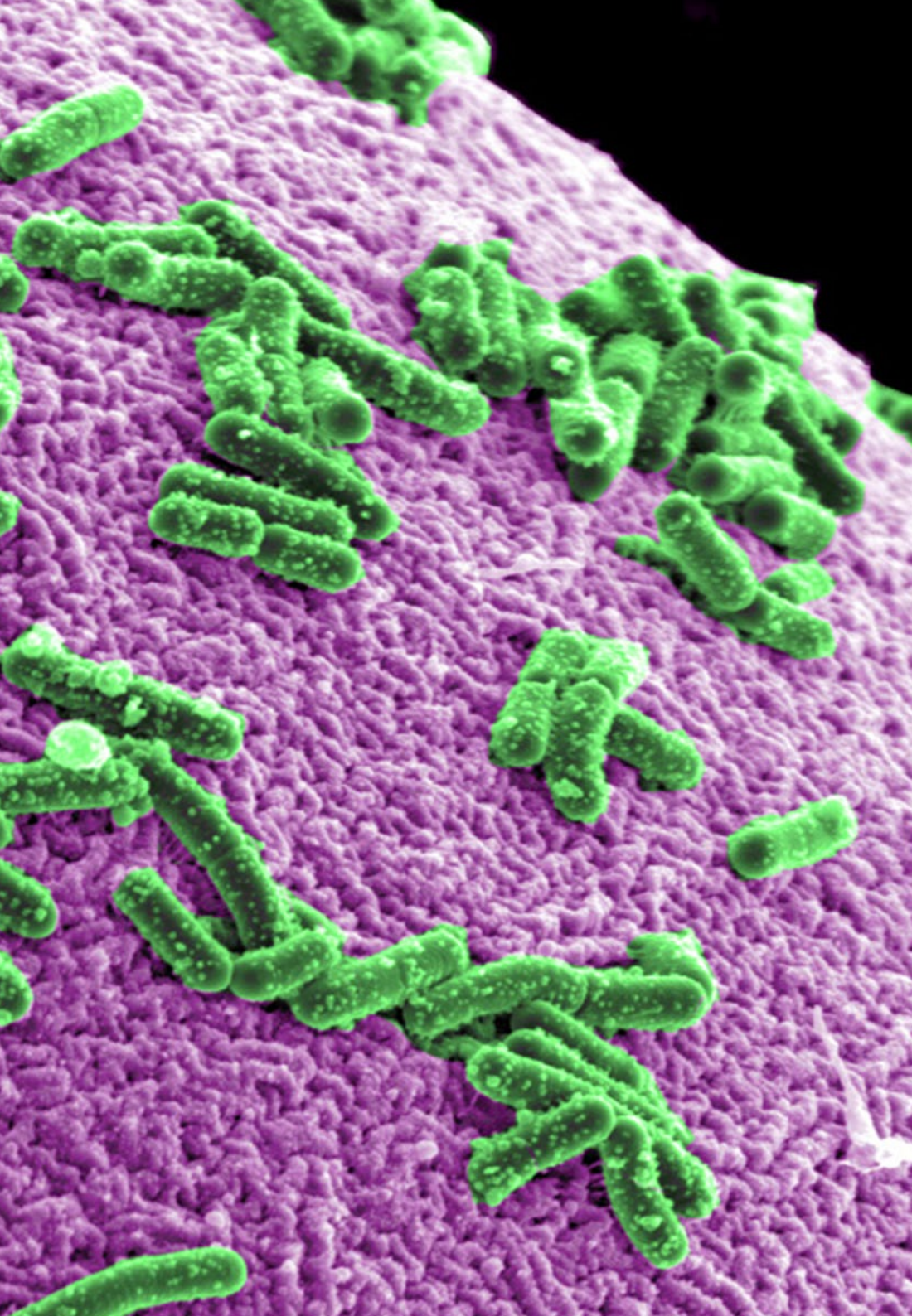
### Dr. Gabaldon Estevani, Toni

- ◆ IRB and BSC senior group leader
- ◆ Co-founder and Scientific Advisor (CSO) of Microomics SL
- ◆ ICREA Research Professor and Group Leader of the Comparative Genomics Laboratory
- ◆ Doctor of Medical Sciences, Radboud University Nijmegen
- ◆ Corresponding Member of the Royal National Academy of Pharmacy of Spain
- ◆ Member of the Spanish Young Academy

### Dr. Álvarez García, Verónica

- ◆ Assistant Physician of the Digestive Area at the Río Hortega University Hospital
- ◆ Specialist in Digestive System at the Central Hospital of Asturias
- ◆ Speaker at the XLVII Congress SCLECARTO
- ◆ Degree in Medicine and Surgery
- ◆ Digestive System Specialist





**Dr. Fernández Madera, Juan Jesus**

- ◆ Allergologist at HUCA
- ◆ Allergologist at HUCA
- ◆ Former Head of the Allergology Unit, Monte Naranco Hospital, Oviedo
- ◆ Allergology Service, Central University Hospital of Asturias
- ◆ Member of: Board of Directors of Alergonorte, Scientific Committee of Rhinoconjunctivitis of the SEAIC and Advisory Committee of Medicinatv.com

**Dr. Méndez García, Celia**

- ◆ Biomedical Researcher at Novartis Laboratories in Boston, USA
- ◆ Doctorate in Microbiology from the University of Oviedo
- ◆ Member of the North American Society for Microbiology

**Dr. Losa Domínguez, Fernando**

- ◆ Gynecologist at the Sagrada Familia Clinic of HM Hospitals
- ◆ Doctor in private practice in Obstetrics and Gynecology in Barcelona
- ◆ Expert in Gynecoesthetics by the Autonomous University of Barcelona
- ◆ Member of: Spanish Association for the Study of Menopause, Spanish Society of Phytotherapeutic Gynecology, Spanish Society of Obstetrics and Gynecology and Board of the Menopause Section of the Catalan Society of Obstetrics and Gynecology

**Dr. Alonso Arias, Rebeca**

- ◆ Director of the Immunosenescence research group of the HUCA Immunology Service
- ◆ Specialist Immunology Physician at the Central University Hospital of Asturias
- ◆ 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

**Dr. Gonzalez Rodríguez, Silvia Pilar**

- ◆ Deputy Medical Director, Research Coordinator and Clinical Chief of the Menopause and Osteoporosis Unit at Gabinete Médico Velázquez
- ◆ Specialist in Gynecology and Obstetrics at HM Gabinete Velázquez
- ◆ Medical Expert at Bypass Comunicación en Salud, SL
- ◆ Key Opinion Leader of several international pharmaceutical laboratories
- ◆ Doctor in Medicine and Surgery from the University of Alcalá de Henares, specializing in Gynecology
- ◆ Specialist in Mastology by the Autonomous University of Madrid
- ◆ Master's Degree in Sexual Orientation and Therapy from the Sexological Society of Madrid
- ◆ Master's Degree in Climacteric and Menopause from the International Menopause Society
- ◆ Postgraduate Diploma in Epidemiology and New Applied Technologies from the UNED (Spanish Distance Learning University)
- ◆ University Diploma in Research Methodology from the Foundation for the Training of the Medical Association and the National School of Health of the Carlos III Health Institute

**Dr. Verdú López, Patricia**

- ◆ Medical Specialist in Allergology at the Beata María Ana Hospital of Hermanas Hospitalarias
- ◆ Physician specializing in Allergology at Inmunomet Health and Integral Wellness Center.
- ◆ Research physician in Allergology at San Carlos Hospital
- ◆ Specialist in Allergology at the University Hospital Dr. Negrín in Las Palmas of Gran Canaria.
- ◆ Degree in Medicine from the University of Oviedo
- ◆ Master's Degree in Aesthetics and Antiaging Medicine at the Complutense University of Madrid

**Dr. Uberos, José**

- ◆ Head of section in the Neonatology area of the San Cecilio Clinical Hospital of Granada
- ◆ Specialist in Pediatrics and Child Care
- ◆ Associate Professor of Pediatrics, University of Granada
- ◆ 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 Andalucía
- ◆ Editor of the Journal of the Pediatric Society of Eastern Andalusia (Bol. SPAO)
- ◆ Doctor of Medicine and Surgery
- ◆ Degree in Medicine from the University of Santiago de Compostela
- ◆ Member of the Board of the Pediatric Society of Eastern Andalusia

**Dr. López Martínez, Rocío**

- ◆ Physician in the area of Immunology at the Vall d'Hebron Hospital
- ◆ Immunology Physician at the Vall d' Hebron Hospital
- ◆ Internal Biologist in Immunology at Central University Hospital of Asturias
- ◆ Master in Biostatistics and Bioinformatics, Universidad Oberta of Catalunya

**Ms. Bueno García, Eva**

- ♦ Predoctoral researcher in Immunosenescence at the Immunology Service of the Central University Hospital of Asturias (HUCA)
- ♦ Degree in Biology from the University of Oviedo
- ♦ Master's Degree in Biomedicine and Molecular Oncology from the University of Oviedo
- ♦ Molecular biology and immunology courses

**Dr. Narbona López, Eduardo**

- ♦ Speciality Neonatal Unit, San Cecilio University Hospital
- ♦ Advisor to the Department of Pediatrics, University of Granada
- ♦ Member of: Pediatric Society of Western Andalusia and Extremadura and Andalusian Association of Primary Care Pediatrics

**Dr. López Vázquez, Antonio**

- ♦ Immunology at the Central University Hospital of Asturias
- ♦ Area Specialist in Immunology, Central University Hospital of Asturias, Spain.
- ♦ Collaborator of the Carlos III Health Institute
- ♦ Advisor of Aspen Medical
- ♦ Doctor of Medicine, University of Oviedo

**Ms. Rodríguez Fernández, Carolina**

- ♦ Biotechnology Researcher at Adknoma Health Research
- ♦ Researcher at Adknoma Health Research
- ♦ Master in Clinical Trials Monitoring by ESAME Pharmaceutical Business School
- ♦ Master's Degree in Food Biotechnology from the University of Oviedo
- ♦ University Expert in Digital Teaching in Medicine and Health by CEU Cardenal Herrera University

**Dr. Lombó Burgos, Felipe**

- ♦ PhD in Biology
- ♦ Head of the BIONUC Research Group, University of Oviedo
- ♦ Former Director of the Research Support Area of the AEI Project
- ♦ Member of the Microbiology Area of the University of Oviedo
- ♦ Co-author of the research Biocidal nanoporous membranes with inhibitory activity of biofilm formation at critical points in the production process of the dairy industry
- ♦ Head of the study on 100% natural acorn-fed ham against inflammatory bowel diseases
- ♦ Speaker III Congress of Industrial Microbiology and Microbial Biotechnology

**Ms. Suárez Rodríguez, Marta**

- ♦ Gynecologist specialized in Senology and Breast Pathology
- ♦ Researcher and University Professor
- ♦ PhD in Medicine and Surgery from the Complutense University of Madrid
- ♦ Degree in Medicine and Surgery from the Complutense University of Madrid
- ♦ Master's Degree in Senology and Breast Pathology from the Autonomous University of Barcelona

**Dr. López López, Aranzazu**

- ♦ Specialist in Biological Sciences Researcher
- ♦ Researcher at Fisabio Foundation
- ♦ Assistant Researcher at the University of the Balearic Islands
- ♦ PhD in Biological Sciences from the University of the Balearic Islands

# 04

## Structure and Content

The curriculum of this university program will lead the physiotherapist professional to be able to keep up to date with the advances in terms of Skin Microbiota. For this purpose, the excellent teaching team of this program provides students with the most innovative didactic material based on multimedia pills, clinical case studies and specialized readings, which will allow them to further extend the rigorous information provided in this academic option. In addition, the syllabus will be available 24 hours a day, 7 days a week.







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*A complete curriculum, accessible 24  
hours a day, 7 days a week”*

## Module 1. Skin Microbiota

- 1.1. Skin Physiology
  - 1.1.1. Structure of the Skin: Epidermis, Dermis, and Hypodermis
  - 1.1.2. Functions of the Skin
  - 1.1.3. Microbial Composition of the Skin
- 1.2. Factors that Regulate the Type of Bacterial Flora in the Skin
  - 1.2.1. Sweat Glands, Sebaceous Glands, Desquamation
  - 1.2.2. Factors that Alter the Ecology of the Skin and its Microbiota
- 1.3. Skin Immune System. Epidermis; Essential , Element of our Defences
  - 1.3.1. Epidermis; Essential , Element of our Defences
  - 1.3.2. Elements of the Cutaneous Immune System: Cytosines, Keratinocytes, Dendritic Cells, Lymphocytes, Antimicrobial Peptides
  - 1.3.3. Influence of the Skin Microbiota on the Skin Immune System. Staphylococcus Epidermidis, Staphylococcus Aureus
- 1.4. Alteration of the Normal Cutaneous Microbiota (Dysbiosis) and Alteration of the Barrier Function
  - 1.4.1. Impaired Barrier Function
- 1.5. Triggered Skin Diseases
  - 1.5.1. Psoriasis (Streptococcus Pyogenes)
  - 1.5.2. Acne Vulgaris.
  - 1.5.3. Atopic Dermatitis
  - 1.5.4. Rosacea
- 1.6. Influence of the use of Probiotics in the Prevention and Treatment of Different Skin Diseases
- 1.7. Current Lines of Research

## Module 2. Microbiota. Microbiome. Metagenomics

- 2.1. Definition and Relationship Between Them
- 2.2. Composition of the Microbiota: Types, Species and Strains
  - 2.2.1. Groups of Microorganisms that Interact with Humans: Bacteria, Fungi, Viruses, and Protozoa
  - 2.2.2. Key Concepts: Symbiosis, Commensalism, Mutualism, Parasitism
  - 2.2.3. Autochthonous Microbiota
- 2.3. Different Human Microbiota. General Overview of Eubiosis and Dysbiosis
  - 2.3.1. Gastrointestinal Microbiota
  - 2.3.2. Oral Microbiota
  - 2.3.3. Skin Microbiota
  - 2.3.4. Respiratory Tract Microbiota
  - 2.3.5. Urinary Tract Microbiota
  - 2.3.6. Reproductive System Microbiota
- 2.4. Factors that Influence Microbiota Balance and Imbalance
  - 2.4.1. Diet and Lifestyle. Gut-Brain Axis
  - 2.4.2. Antibiotic Therapy
  - 2.4.3. Epigenetic-Microbiota Interaction. Endocrine Disruptors
  - 2.4.4. Probiotics, Prebiotics, Symbiotics. Concepts and Overviews
  - 2.4.5. Fecal Transplant, Latest Advances



### Module 3. Microbiota and Immune System

- 3.1. Immune System Physiology
  - 3.1.1. Immune System Components
    - 3.1.1.1. Lymphoid Tissue
    - 3.1.1.2. Immune Cells
    - 3.1.1.3. Chemical Systems
  - 3.1.2. Organs Involved in Immunity
    - 3.1.2.1. Primary Organs.
    - 3.1.2.2. Secondary Organs.
  - 3.1.3. Innate, Non-Specific, or Natural Immunity
  - 3.1.4. Acquired, Adaptive, or Specific Immunity
- 3.2. Nutrition and Lifestyle
- 3.3. Functional Foods (Probiotics and Prebiotics), Nutraceuticals, and Immune System
  - 3.3.1. Probiotics, Prebiotics and Symbiotics
  - 3.3.2. Nutraceuticals and Functional Foods
- 3.4. Bidirectional Relationship Between Microbiota and the Neuroimmunoendocrine System
- 3.5. Microbiota, Immunity and Nervous System Disorders:
- 3.6. The Gut-Microbiota-Brain Axis
- 3.7. Current Lines of Research

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*Delve into how the use of Probiotics influences the prevention and treatment of different skin diseases”*

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.





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*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. Physiotherapists/kinesiologists 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 of professional physiotherapy 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. Physiotherapists/kinesiologists who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their knowledge.
2. The learning process has a clear focus on practical skills that allow the physiotherapist/kinesiologist 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 case method with the best 100% online teaching methodology available: Relearning.

This 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, a real revolution with respect to the mere study and analysis of cases.



*The physiotherapist/kinesiologist 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.*



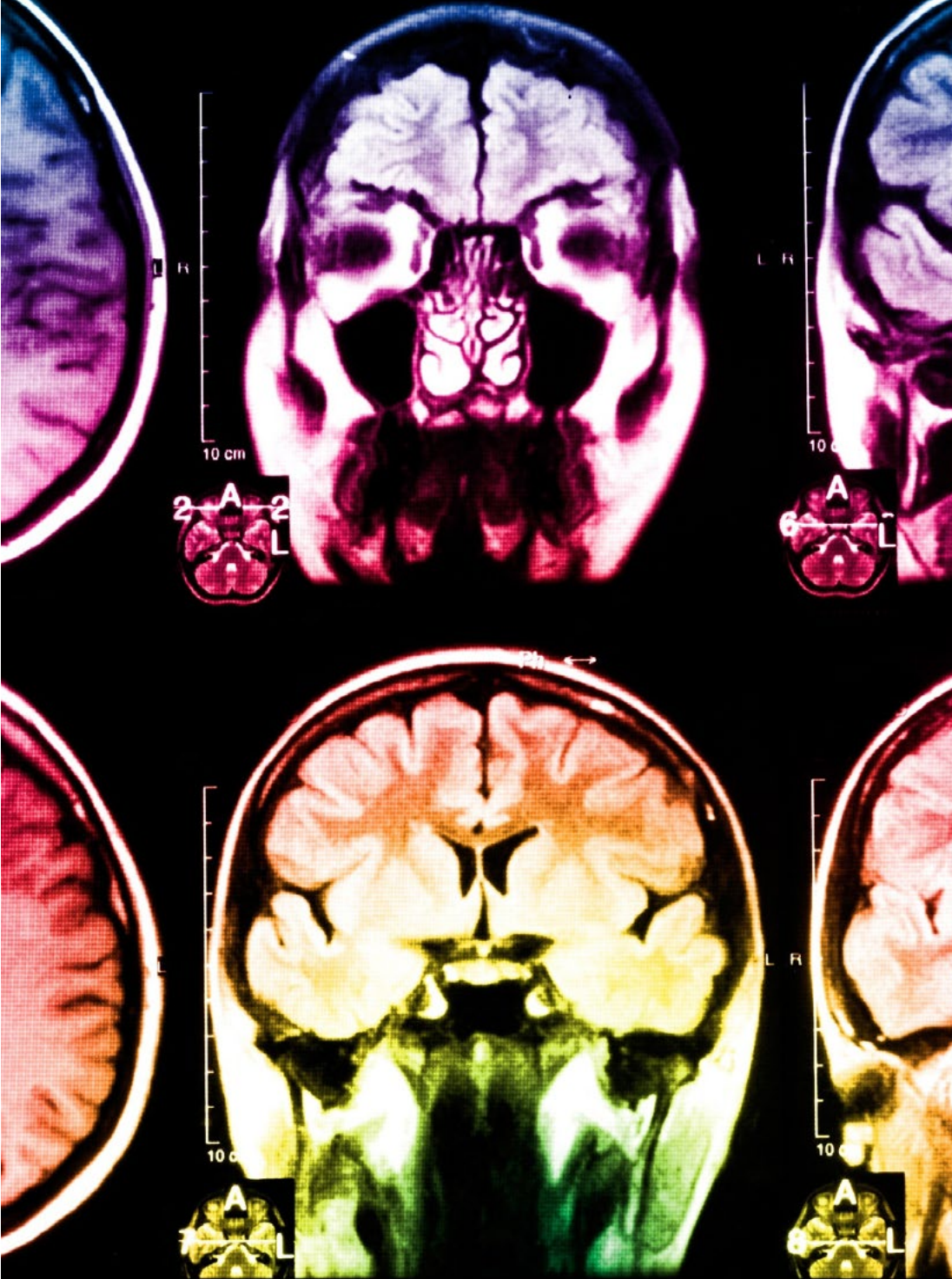
At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology we trained more than 65,000 physiotherapists/kinesiologists with unprecedented success in all clinical specialties, regardless of the workload. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

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

In our program, learning is not a linear process, but rather a spiral (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 really specific and precise.

These contents are then applied to the 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.



#### Physiotherapy Techniques and Procedures on Video

TECH brings students closer to the latest techniques, the latest educational advances and to the forefront of current Physiotherapy techniques and procedures. 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 them as many times as you want.



#### Interactive Summaries

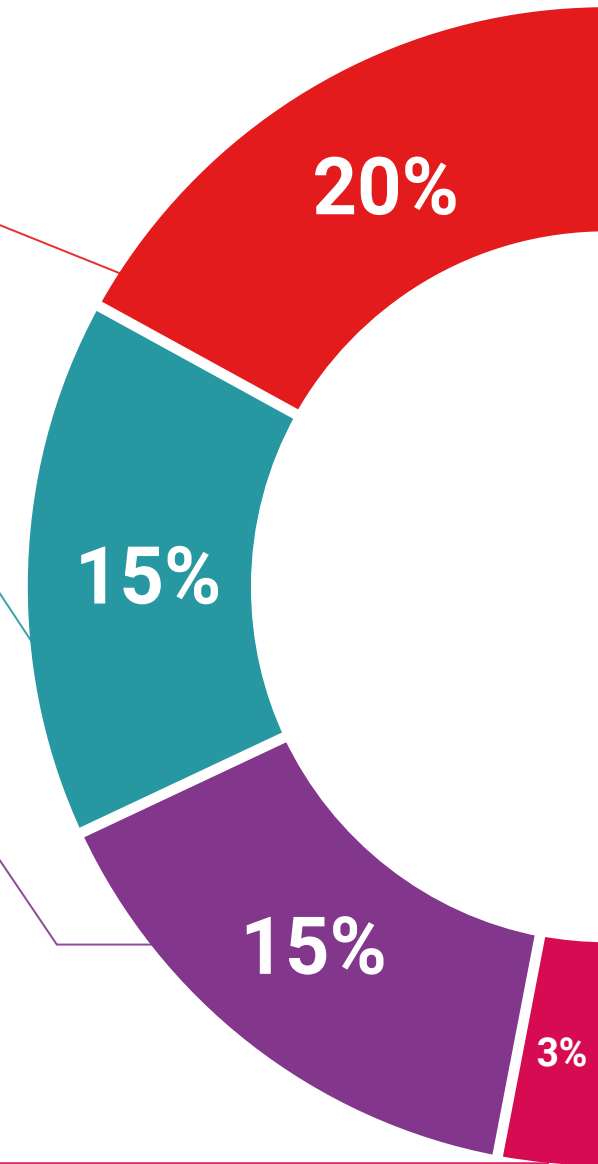
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

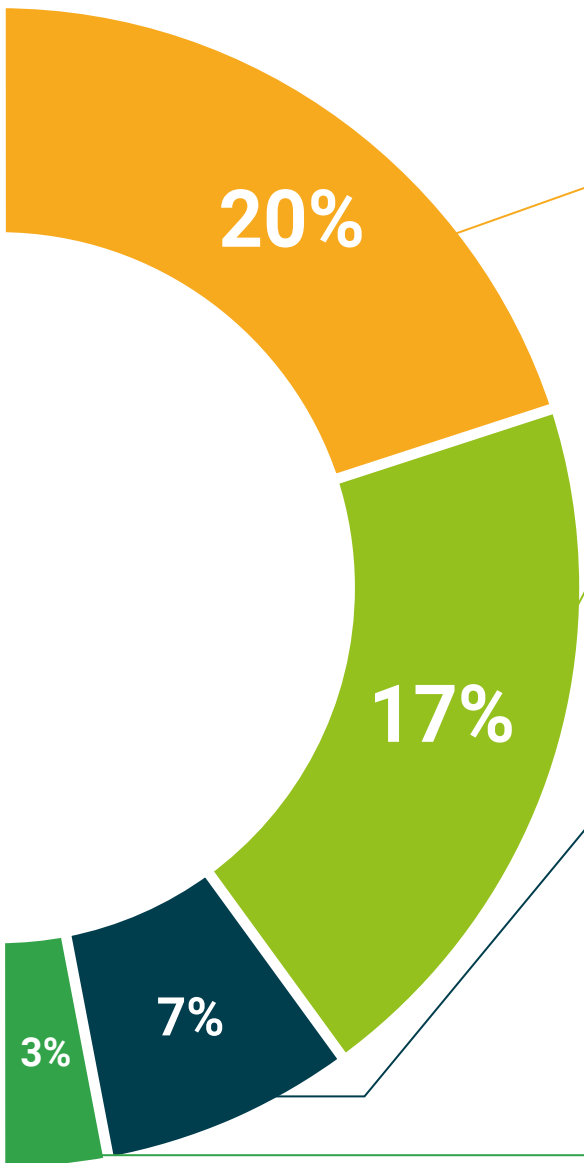
This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".



#### 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 Diploma in Skin Microbiota guarantees, in addition to the most accurate and up-to-date knowledge, access to a Postgraduate Diploma issued by TECH Global University.



“

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

This private qualification will allow you to obtain a **Postgraduate Diploma in Skin Microbiota** 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** private qualification 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 Diploma in Skin Microbiota**

Modality: **online**

Duration: **6 months**

Accreditation: **18 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 quality  
development languages  
virtual classroom

**tech** global  
university

**Postgraduate Diploma**  
Skin Microbiota

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Accreditation: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

# Postgraduate Diploma

## Skin Microbiota

