

Postgraduate Diploma

Microbiota in Neonatology and Pediatrics





Postgraduate Diploma Microbiota in Neonatology and Pediatrics

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

Website: www.techtute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-microbiota-neonatology-pediatrics

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01

Introduction

Scientific research in the field of the microbiota has been booming in recent decades, aimed both at the study of its characteristics and its impact on health. The study of this field opens a door to the knowledge of multiple diseases, especially the so-called functional diseases, being the microbiome the main asset of researchers. Aware of this, TECH professionals have designed this program that aims to provide specialists with all the information that will allow them to update their knowledge on the functioning of Metagenomics in neonates and pediatric patients. All this through a convenient and flexible 100% online format where you will also find hours of diverse material to perfect your skills in the use of probiotics and prebiotics to enhance microbiota and health.



“

TECH presents this Postgraduate Diploma as a perfect opportunity for healthcare professionals looking to get up to date on the latest developments in Microbiota in Pediatrics 100% online”

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 field represents a rapid scientific advance, and it is universally accepted that in order to achieve an adequate health condition it is also necessary to have a healthy microbiota.

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

In this sense, this Postgraduate Diploma in Microbiota in Neonatology and Pediatrics gives the ease of access to information and the interest aroused among the general population on issues related to the Microbiota, its eubiosis and dysbiosis, problems related to them, probiotics and prebiotics with the growing market launch of new products with very specific strains for very specific problems and diseases, etc.

All this, through a convenient and flexible 100% online format with which the specialist can keep abreast of developments in this field applied to the field of children from wherever they want and with a schedule fully adapted to their availability. In addition, students will have 450 hours of diverse material: detailed videos, research articles, complementary readings, dynamic summaries, self-knowledge exercises and much more, to delve, in a personalized way, into the different sections of the syllabus.

This **Postgraduate Diploma in Microbiota in Neonatology and Pediatrics** contains the most complete and up-to-date scientific program on the market. Its most outstanding features are:

- ♦ The development of practical cases presented by experts in Microbiota in Neonatology and Pediatrics.
- ♦ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential 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



A multidisciplinary and comprehensive program that will bring you closer to the latest advances in probiotics and prebiotics used to enhance health and the Microbiota."

“

If you are looking for a degree that will allow you to upgrade your knowledge on the different types of Microbiota and their characteristics, this Postgraduate Diploma is perfect for you"

The program includes in its teaching staff professionals of the sector that pour into this program the experience of their work, as well as recognized specialists from reference societies and prestigious universities.

Its 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 an immersion education programmed to learn in real situations.

The design of this program focuses on Problem-Based Learning, by means of which the professional must try to solve the different professional practice situations that are presented throughout the academic course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.

You will delve into the diets and lifestyles that have the best health-enhancing results based on the most recent clinical studies.

The symbiosis between mother and child is real and vital. Therefore, this Postgraduate Diploma focuses on the characteristics of this relationship and how to enhance its benefits.



02 Objectives

The success brought about by the application of advances that have been made in the field of the Human Microbiota with respect to health potentiation, especially in neonatal and pediatric patients, is what has led TECH to develop this program. The program includes in its teaching staff professionals of the sector who pour in their work experience in this program, as well as the experience of their own work. In addition, they will be able to keep up to date on the advances related to probiotics and prebiotics, and to implement the most innovative and effective supplements to their formulary.



“

A program that delves into the characteristics of breast milk and its importance for the development of the microbiota in the newborn, so that the specialist can provide the specialist with the latest information and better guide mothers"



General Objectives

- Offer a complete and broad 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 evidences how nowadays a privileged position is being given to the Microbiota and its interaction with many non-digestive pathologies, autoimmune nature, or to its relationship with immune system deregulation, disease prevention and as support to other medical treatments
- 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 on its interaction with other medical treatments
- Encouraging professional stimulus, through continued specialization and research

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If among your objectives is to know in detail the most intrinsic characteristics of the latest probiotics and prebiotics launched to the market, with this Postgraduate Diploma you will overcome them in less than 6 months”.





Specific Objectives

Module 1. Microbiota. Microbiome. Metagenomics

- ♦ Know the relationship between the Microbiota and the Microbiome, and its most accurate definitions
- ♦ Understand in depth the concepts of symbiosis, commensalism, mutualism and parasitism
- ♦ Delve into the different types of Human Microbiota and know their generalities
- ♦ Delve into the aspects that trigger the balance and imbalance of the Microbiota

Module 2. Microbiota in Neonatology and Pediatrics

- ♦ Know the mother-infant Symbiosis
- ♦ Understand the factors influencing the Intestinal Microbiota of the mother in the gestational stage and at the time of delivery
- ♦ Understand the influence of the type of delivery on the microbiota of the neonatal
- ♦ Understand the influence of the type of breastfeeding on the infants Microbiota
- ♦ Know the clinical applications of Probiotics and Prebiotics in pediatric patients
- ♦ Understand the Influence of Antibiotic and other Psychotropic treatment on infant Microbiota
- ♦ Deepen in the current lines of research on the subject

Module 3. Probiotics, Prebiotics, Microbiota, and Health

- ♦ Delve into probiotics, their definition, history, mechanisms of action
- ♦ Delve into prebiotics, their definition, types of prebiotics, and mechanisms of action
- ♦ Know the clinical applications of probiotics and prebiotics in Gastroenterology
- ♦ Know the Clinical Applications of Endocrinology and Cardiovascular Disorders
- ♦ Understand the clinical applications of probiotics and prebiotics in Urology
- ♦ Understand the clinical applications of probiotics and prebiotics in Gynecology
- ♦ Know the clinical applications of Probiotics and prebiotics in Immunology: Autoimmunity, Pneumology, Dermatology, Vaccines
- ♦ Know the clinical applications of probiotics and prebiotics in nutritional diseases
- ♦ Know the clinical applications of probiotics and prebiotics in neurological diseases, mental health, and elderly
- ♦ Understand the clinical applications of Probiotics and Prebiotics in critically ill cancer patients
- ♦ Understand the use of dairy products as a natural source of Probiotics and Prebiotics
- ♦ Delve into the safety and legislation in the use of Probiotics

03

Course Management

The inclusion of a top-level faculty is always a priority for TECH when designing its programs. For this reason, students who access this Postgraduate Diploma will have the opportunity to share the academic experience with a group of professionals in the field of Biology and Medicine, specialized in the field of Microbiota and its application in Neonatology and Pediatrics. Thanks to this, you will be able to learn first-hand about the latest developments in this sector, as well as implement the most innovative and effective clinical practices related to the microorganisms that reside in the human body, into your practice.



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You will have the support of a teaching team of the highest level, which will accompany you throughout the academic experience and will be at your disposal to answer any questions that may arise during the course of it"

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

- 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 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 Azorín, 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 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



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



Dr. 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. 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. 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. 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 Complutense La University of Madrid

Dr. Rioseras de Bustos, Beatriz

- ♦ Microbiologist and renowned researcher
- ♦ Resident in immunology at HUCA
- ♦ Member of the Biotechnology of Nutraceuticals and Bioactive Compounds Research Group (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. 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

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

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. 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. 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. 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. 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, 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

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, Board of the Menopause Section of the Catalan Society of Obstetrics and Gynecology

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



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. Fernández Madera, Juan Jesus

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



Take the opportunity to learn about the latest advances in this field in order to apply it to your daily practice"

04

Structure and Content

For the design of the syllabus of this Postgraduate Diploma, TECH has taken into consideration, as it could not be otherwise, the criteria of the teaching team, which, being formed by Microbiota specialists from different fields, knows in detail the latest developments related to their clinical practice. In addition, the program includes hours of additional and diverse high-quality material, so students can delve into the different sections of the syllabus in a personalized way, as well as contextualize the information in order to avoid any doubts.



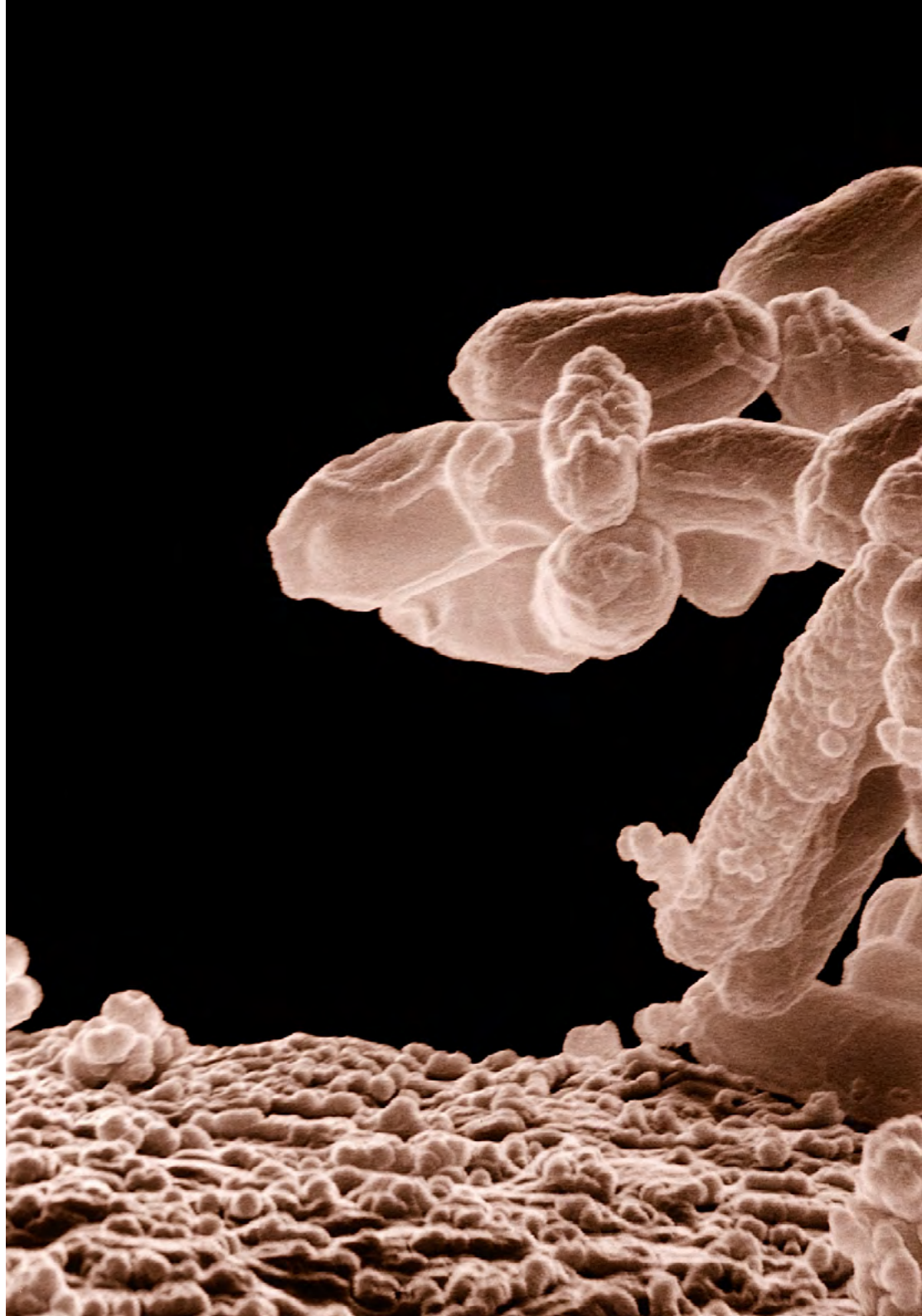


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A diploma that will allow you to get up to date on new developments related to safety and legislation in the use of probiotics in the pediatric field through 450 hours of the best diverse material"

Module 1. Microbiota. Microbiome. Metagenomics

- 1.1. Definition and Relationship Between Them
- 1.2. Composition of the Microbiota: Types, Species and Strains
 - 1.2.1. Groups of Microorganisms that Interact with Humans: Bacteria, Fungi, Viruses, and Protozoa
 - 1.2.2. Key Concepts: Symbiosis, Commensalism, Mutualism, Parasitism
 - 1.2.3. Autochthonous Microbiota
- 1.3. Different Human Microbiota. General Overview of Eubiosis and Dysbiosis
 - 1.3.1. Gastrointestinal Microbiota
 - 1.3.2. Oral Microbiota
 - 1.3.3. Skin Microbiota
 - 1.3.4. Respiratory Tract Microbiota
 - 1.3.5. Urinary Tract Microbiota
 - 1.3.6. Reproductive System Microbiota
- 1.4. Factors that Influence Microbiota Balance and Imbalance
 - 1.4.1. Diet and Lifestyle. Gut-Brain Axis
 - 1.4.2. Antibiotic Therapy
 - 1.4.3. Epigenetic-Microbiota Interaction. Endocrine Disruptors
 - 1.4.4. Probiotics, Prebiotics, Symbiotics. Concepts and Overviews
 - 1.4.5. Fecal Transplant, Latest Advances





Module 2. Microbiota in Neonatology and Pediatrics

- 2.1. Mother-Child Symbiosis
- 2.2. Influencing Factors on the Gut Microbiota of the Mother During Pregnancy and During Birth. Influence of the Type of Delivery on the Microbiota of the New-born
- 2.3. Type and Duration of Breastfeeding, Influence on the Infant's Microbiota
 - 2.3.1. Breast Milk: Composition of the Breast Milk Microbiota. Importance of Breastfeeding in the New-born's Microbiota
 - 2.3.2. Artificial Breastfeeding. Use of Probiotics and Prebiotics in Infant Milk Formulas
- 2.4. Clinical Applications of Probiotics and Prebiotics in Pediatric Patients
 - 2.4.1. Digestive Diseases: Functional Digestive Disorders, Diarrhea, Necrotizing Enterocolitis. Intolerances
 - 2.4.2. Non-digestive Pathologies: Respiratory and ENT, Atopic Diseases, Metabolic Diseases. Allergies
- 2.5. Influence of Antibiotic and other Psychotropic Treatment on the Microbiota of the Infant
- 2.6. Current Lines of Research

Module 3. Probiotics, Prebiotics, Microbiota, and Health

- 3.1. Probiotics
- 3.2. Prebiotics
- 3.3. Clinical Applications of Probiotics and Prebiotics in Gastroenterology
- 3.4. Clinical Applications of Endocrinology and Cardiovascular Disorders
- 3.5. Clinical Applications of Probiotics and Prebiotics in Urology
- 3.6. Clinical Applications of Probiotics and Prebiotics in Gynecology
- 3.7. Clinical Applications of Probiotics and Prebiotics in Immunology
- 3.8. Clinical Applications of Probiotics and Prebiotics in Nutritional Diseases
- 3.9. Clinical Applications of Probiotics and Prebiotics in Neurological Diseases
- 3.10. Clinical Applications of Probiotics and Prebiotics in Critically Ill Patients
- 3.11. Dairy products as a natural source of probiotics and prebiotics
- 3.12. Safety and Legislation in the Use of Probiotics

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. 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 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.

Professionals will learn through real cases and by resolving 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, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. 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 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 (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by TECH's 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 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.



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 Diploma in Microbiota in Neonatology and Pediatrics guarantees, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma certificate issued by TECH Global University.



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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 Microbiota in Neonatology and Pediatrics** 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 Microbiota in Neonatology and Pediatrics**

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.



Postgraduate Diploma
Microbiota in Neonatology
and Pediatrics

- » Modality: online
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Postgraduate Diploma

Microbiota in Neonatology and Pediatrics