

# Postgraduate Diploma

Diagnostics, Bacteriology and  
Mycology in Imported Diseases





## Postgraduate Diploma

### Diagnosics, Bacteriology and Mycology in Imported Diseases

Course Modality: **Online**

Duration: **6 months.**

Certificate: **TECH Technological University**

**18 ECTS Credits**

Teaching Hours: **450 hours.**

Website: [www.techtitute.com/medicine/postgraduate-diploma/postgraduate-diploma-diagnosics-bacteriology-mycology-imported-diseases](http://www.techtitute.com/medicine/postgraduate-diploma/postgraduate-diploma-diagnosics-bacteriology-mycology-imported-diseases)

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# 01

# Introduction

Imported infectious diseases, bacterial or fungal in nature, pose a new challenge to the medical professional. Their particular microbiology, their genetic and immunological development and their diagnosis are aspects that require specific knowledge in order to provide an adequate response. This program, focused on practice, is created to give the professional the possibility of increasing and updating their knowledge in this complex area of intervention, in just a few months of intensive and effective training.





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*Improve your diagnostic skills in mycotic and bacteriological diseases with this Postgraduate Diploma with excellent curricular value”*

Imported diseases have become a global threat. With the increase in population movements and climate change, the effects that were once limited to certain geographical areas now reach every corner of the planet. Within this group, fungal and neglected diseases currently require very special attention.

On the other hand, people no longer suffer from the diseases typical of their area. The population travels and with it the bacteria, which move from one continent to another at great speed. The approach to the diseases created by these external bacterial groups requires an updated and trained professional who can respond to their diagnosis and treatment needs.

Therefore, during this Postgraduate Diploma students will have the opportunity to acquire the basic knowledge required to face the situations that arise around patients suspected of having contracted a disease while traveling. From the moment of diagnosis, with the development of the guidelines that the specialist must follow, to the information on procedures or attitudes to eradicate in this medical practice, throughout the course, students will learn to integrate new techniques and the most advanced procedures in this discipline into their work.

The differential contribution of this Postgraduate Diploma is its eminent practical vision. This approach has been implemented in all the teaching materials that the student will use during their training. Our goal: to enable you to start applying what you have learned immediately in your work.

The **Postgraduate Diploma Diagnostics, Bacteriology and Mycology in Imported Diseases** contains the scientific most complete and up-to-date educational program on the market. The most important features of the program include:

- ♦ Practical cases presented by experts in Imported infectious diseases.
- ♦ The graphic, schematic, and eminently 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.
- ♦ 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.



*Imported diseases have become a real public health problem. For this reason, healthcare institutions are increasingly demanding professionals specialized in this area"*

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*Grow as a physician with expertise in imported infectious diseases and become a key player in your industry"*

The program's teaching staff includes professionals from the sector who contribute their work experience to this training 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 training programmed to train 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 academic year. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts.

*In a virtually borderless and globalized world, the transmission of infectious diseases must be properly controlled to ensure people's health.*

*During this online program, you will learn about the most relevant characteristics of imported infectious diseases of mycotic or bacteriological nature.*



# 02 Objectives

Through this Postgraduate Diploma, it seeks to promote the growth of highly qualified professionals for a high-level work practice. An objective that is complemented, moreover, in a global manner, by promoting human development that lays the foundations for a better society. This objective is focused on helping medical professionals reach a much higher level of expertise and control. A goal that, in just six months, you will be able to achieve with a highly intensive and precise course.





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*Your goals and TECH's goals come together and become a reality through this Postgraduate Diploma"*



## General Objective

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- Guarantee professional improvement, through up-to-date and in-depth knowledge of the best scientific evidence for the prevention, diagnosis, and treatment of tropical diseases and international health with a multidisciplinary and integrative approach that facilitates the control of these pathologies.



*You will achieve your goals thanks to our tools, and you will be accompanied along the way by leading professionals"*





## Specific Objectives

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### **Module 1. Microbiology, Genetics and Immunology of Tropical Diseases**

- ♦ Highlight the development of vaccines for tropical diseases.
- ♦ Emphasize the development of future antibiotics and other therapeutic modalities for infectious diseases.

### **Module 2. Tropical Bacterial Diseases**

- ♦ Expose the crucial issue of super-resistant microbes and their relationship with the use of antimicrobials.
- ♦ Identify the main germs involved in foodborne infections and their clinical significance in tropical regions.

### **Module 3. Tropical Fungal Diseases**

- ♦ Explain the fungal diseases with the highest morbidity and mortality in these regions.



03

# Course Management

The creation, preparation and design of this Postgraduate Diploma involves the participation of prestigious and renowned medical specialists, with numerous publications, teaching experience and professional experience in many countries, where many of the diseases studied have a high morbimortality. The teaching team is made up of a multidisciplinary faculty from various medical specialties, such as internal medicine, general surgery, microbiology, pathological anatomy, and pharmacology, who are involved in the care of these patients.







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*You will study with, and learn from the best professionals in the sector. This will give you more confidence in your daily practice”*

## Management



### Dr. Díaz Menéndez, Marta

- Specialist in Internal Medicine in the Department of Infectious/Tropical Medicine at Carlos III-La Paz Hospital.
- Degree in Medicine and Surgery from the University of Alcalá de Henares
- Specialty in Internal Medicine at La Paz University Hospital, Madrid.
- Doctorate in Medicine from the Autonomous University Madrid
- Teaching placements in Equatorial Guinea and Ethiopia as complementary training in tropical medicine.
- Master's Degree in HIV Infection at the Rey Juan Carlos University
- Diploma in Nursing from the Autonomous University of Madrid.
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## Professors

### **Dra. de Miguel Buckley, Rosa**

- ♦ F.E.A. Internal Medicine- Infectious Diseases Unit/ HIV Unit/Tropical and Travel Medicine Unit. La Paz University Hospital (Madrid)
- ♦ Degree in Medicine, University of Seville
- ♦ Medical Elective in the Digestive Service, Hepatology Section, at Cork University Hospital
- ♦ Professional Exchange of the International Federation of Medical Students' Associations, Cardiology Department, en The Medical University of Bialystok Clinical Hospital
- ♦ Collaborator in Health Research Fund (FIS) projects.
- ♦ Collaborating researcher in clinical trials TANGO, SALSA (multicenter, simplification of antiretroviral treatment), Hospital registry of patients affected by bacterial resistance (SEIMC).

### **Dr. Arsuaga Vicente, Marta**

- ♦ F.E.A. Tropical Medicine and Travel Medicine Unit at La Paz University Hospital
- ♦ Degree in Medicine and Surgery from the University of Alcalá de Henares.
- ♦ Doctorate in Medicine from the Autonomous University Madrid
- ♦ Specialist in Internal Medicine from the Autonomous University Madrid
- ♦ Master's Degree in Tropical Medicine and International Health from the AUM
- ♦ Expert in Emerging Viruses from UAN

### **Dr. Untoria Tabares, Yeray**

- ♦ Resident Intern, Internal Medicine La Paz University Hospital - Madrid
- ♦ Degree in Medicine from the Complutense University of Madrid.
- ♦ Master's Degree in Clinical Medicine from the Camilo José Cela University
- ♦ Master's Degree in Infectious Diseases and Antimicrobial Treatment from CEU Cardenal Herrera University.
- ♦ Postgraduate Diploma in Microbiological Diagnosis, Antimicrobial Treatment and Research in Infectious Pathology from CEU Cardenal Herrera University
- ♦ Postgraduate Diploma in Community and Nosocomial Infections from CEU Cardenal Herrera University
- ♦ Postgraduate Diploma in Chronic Infectious Diseases and Imported Infections from CEU Cardenal Herrera University

### **Dr. Trigo Esteban, Elena**

- ♦ Physician in the Department of Tropical and Traveler's Diseases at the Carlos III Hospital La Paz.
- ♦ Degree in Medicine and Surgery from the Complutense University of Madrid
- ♦ Master's Degree in Tropical and Health Medicine from the Autonomous University of Madrid
- ♦ Degree in Emerging Viruses from the Autonomous University of Madrid.
- ♦ Course in Tropical and Infectious Diseases by the Oswaldo Cruz Foundation. Evandro Chagas Clinical Research Institute

**Falces Romero, Iker**

- ♦ Specialist in the Microbiology and Parasitology Department at La Paz University Hospital.
- ♦ Degree in Pharmacy from the University of Salamanca
- ♦ Master's Degree in Tropical Diseases from the University of Salamanca
- ♦ Professor of Special Microbiology on the Degree in Medicine at the Autonomous University of Madrid.

**De la Calle Prieto, Fernando**

- ♦ Physician in the Tropical and Travel Medicine Unit of the Carlos III-La Paz Hospital
- ♦ Collaborating physician in the Department of Internal Medicine, Faculty of Medicine, Complutense University of Madrid.
- ♦ Degree in Medicine and Surgery from the University of Alcalá de Henares
- ♦ Master's Degree in Tropical Medicine and International Health from the Autonomous University of Madrid

**Dr. Arribas López, José Ramón**

- ♦ Head of the Infectious Diseases Department at La Paz University Hospital.
- ♦ Coordinator of the High Level Isolation Unit La Paz - Carlos III Hospital
- ♦ Degree in Medicine and Surgery from the Complutense University of Madrid
- ♦ Doctorate in Medicine from the Autonomous University Madrid







**Dr. Marcelo Calvo, Cristina**

- ♦ F.E.A. of Internal Medicine at La Paz University Hospital
- ♦ Degree in Medicine and Surgery from the University of Alcalá.
- ♦ Master's Degree in Infectious Diseases and Microbiological Diagnosis from CEU Cardenal Herrera University.
- ♦ Master's Degree in Integration and Clinical Problem Solving in Medicine from the University of Alcalá, Spain.
- ♦ Expert in community and nosocomial infections from the CEU Cardenal Herrera University
- ♦ Postgraduate Diploma in chronic infectious pathologies and imported infections from CEU Cardenal Herrera University

**Dr. Díaz Pollán, Beatriz**

- ♦ Specialist in the area of Infectious Diseases at La Paz University Hospital.
- ♦ Degree in Medicine and Surgery from the Autonomous University of Madrid.
- ♦ Master's Degree in Infectious Diseases and Antimicrobial Treatment from CEU Cardenal Herrera University.
- ♦ Postgraduate Diploma in community and nosocomial infections from the CEU Cardenal Herrera University
- ♦ Postgraduate Diploma in Microbiological Diagnosis, Antimicrobial Treatment and Research in Infectious Pathology from CEU Cardenal Herrera University
- ♦ Postgraduate Diploma in chronic infectious pathologies and imported infections from CEU Cardenal Herrera University

# 04

## Structure and Content

The structure and the contents of this Postgraduate Diploma has been created by establishing an exhaustive tour through each and every one of the essential topics in the field of infectious diseases of bacteriological and fungal origin. All of this, through a sequential process that will take the student through several topics, constantly acquiring new learning. Thus, this program will become an incredible leap towards the clinical vanguard in this specialty.



A petri dish containing a blue agar medium with several circular bacterial colonies of varying sizes and colors, including yellow and white. The dish is partially visible on the left side of the page.

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*If you are looking for exponential growth in your career, studying from the best content will help you achieve it"*



## Module 1. Microbiology, Genetics, and Immunology of Tropical Diseases

- 1.1. The Microbiology Laboratory in the Diagnosis of Tropical Diseases
- 1.2. Molecular Biology in the Diagnosis of Tropical Diseases
- 1.3. Rapid Diagnostic Methods in Tropical Diseases
- 1.4. Genomics in Tropical Diseases
- 1.5. Host Genetic Factors and their Influence on the Severity of Imported Diseases.
- 1.6. Immune Response to Tropical Diseases
- 1.7. Immunosuppression and its Implication in Tropical Diseases
- 1.8. Vaccines: Basic Concepts. Immunopreventable Diseases. Impact of vaccination programs.
- 1.9. The Study of Antimicrobial Resistance in Tropical Diseases
- 1.10. The Role of Microbiology in Countries with Low Health Resources.

## Module 2. Bacterial Tropical Diseases

- 2.1. Typhoid Fever. Bacterial Diarrhea: Cholera, Shigella, and Campylobacter
- 2.2. Relapsing Fever (Borreliosis), Melioidosis, Bartholomiosis
- 2.3. Leptospirosis.
- 2.4. Bacterial Meningitis in the Tropics
- 2.5. Rickettsiosis
- 2.6. Endemic Treponematosis
- 2.7. Tuberculosis and Buruli Ulcer.
- 2.8. Plague: Historical Overview and Current Situation
- 2.9. Leprosy: Historical Overview and Current Situation
- 2.10. Sexually Transmitted Infections in the Tropics





### Module 3. Tropical Fungal Diseases

- 3.1. Mycology in Tropical Regions
- 3.2. Superficial Mycoses: Dermatophytosis and Tinea Pedis
- 3.3. Mycetoma
- 3.4. Sporotrichomycosis and Chromoblastomycosis
- 3.5. Histoplasmosis
- 3.6. Paracoccidioidomycosis and Coccidioidomycosis
- 3.7. Blastomycosis and Zygomycosis
- 3.8. Cryptococcosis
- 3.9. Candidiasis: Relevance of Resistance to Antifungal Agents
- 3.10. Aspergillosis

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*Don't miss this unique and decisive opportunity to take your career to the next level"*

05

# Methodology

This training program provides you with a different way of learning. Our methodology uses a cyclical learning approach: ***Re-learning***.

This teaching system is used 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 Re-learning, 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

In a given situation, what would you do? Throughout the program you will be presented with multiple simulated clinical cases based on real patients, where you will have to investigate, establish hypotheses and, finally, resolve the situation. There is abundant scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

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



According to Dr. Gervas, 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 potential 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 professional medical practice.



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*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 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 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.



## Re-Learning Methodology

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

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 Re-learning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best Spanish-speaking 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.

*Re-learning 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.



In this program you will have access to the best educational material, prepared with you 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.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.



#### Latest Techniques and Procedures on Video

We introduce you to the latest techniques, to the latest educational advances, to the forefront of current medical techniques. All this, in first person, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many times as you want.



#### Interactive Summaries

We present 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, international guides. in our virtual library you will have access to everything you need to complete your training.







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

Effective learning ought to be contextual. Therefore, we will present you with real case developments in which the expert will guide you through focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



**Testing & Re-testing**

We periodically evaluate and re-evaluate your knowledge throughout the program, through assessment and self-assessment activities and exercises: So that you can see how you are achieving your goals.



**Classes**

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an expert strengthens knowledge and memory, and generates confidence in our future difficult decisions.



**Quick Action Guides**

We offer you the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help you progress in your learning.



# 06

# Certificate

The **Postgraduate Diploma Diagnostics, Bacteriology and Mycology in Imported Diseases** guarantees you, in addition to the most rigorous and up-to-date training, access to a Postgraduate Diploma issued by **TECH Technological University**.



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*Successfully complete this Postgraduate Diploma and receive your university certificate without travel or laborious paperwork"*

The **Postgraduate Diploma Diagnostics, Bacteriology and Mycology in Imported Diseases** contains the scientific most complete and up-to-date educational program on the market.

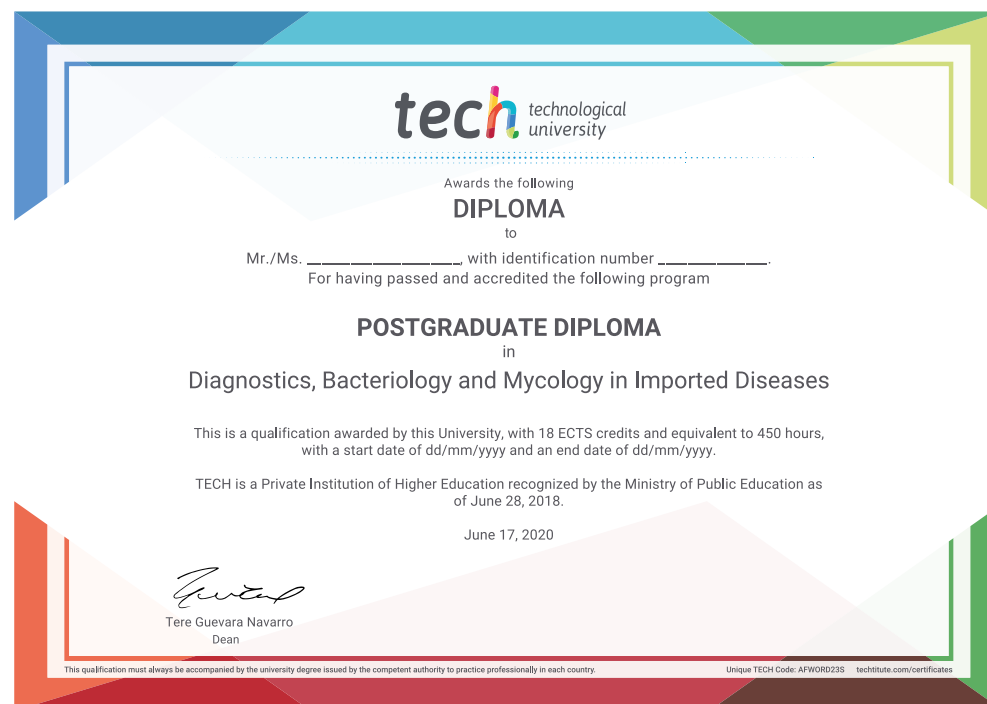
After the student has passed the evaluations, he/she will receive by mail with acknowledgment of receipt their corresponding **Postgraduate Diploma** issued by **TECH Technological University**.

The certificate issued by **TECH Technological University** will specify the qualification obtained through the Postgraduate Diploma, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Postgraduate Diploma Diagnostics, Bacteriology and Mycology in Imported Diseases**

ECTS: **18**

Official Number of Hours: **450 hours**.



\*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH EDUCATION 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 languages  
virtual classroom



**Postgraduate Diploma**  
Diagnostics, Bacteriology  
and Mycology in  
Imported Diseases

Course Modality: Online

Duration: 6 months.

Certificate: TECH Technological University

18 ECTS Credits

Teaching Hours: 450 hours.

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Diagnostics, Bacteriology and  
Mycology in Imported Diseases

