

Postgraduate Diploma

Clinical and Molecular Management
of Infections Caused by Multidrug-
Resistant Bacteria



Postgraduate Diploma Clinical and Molecular Management of Infections Caused by Multidrug-Resistant Bacteria

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

Website: www.techtute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-clinical-molecular-management-infections-caused-multidrug-resistant-bacteria

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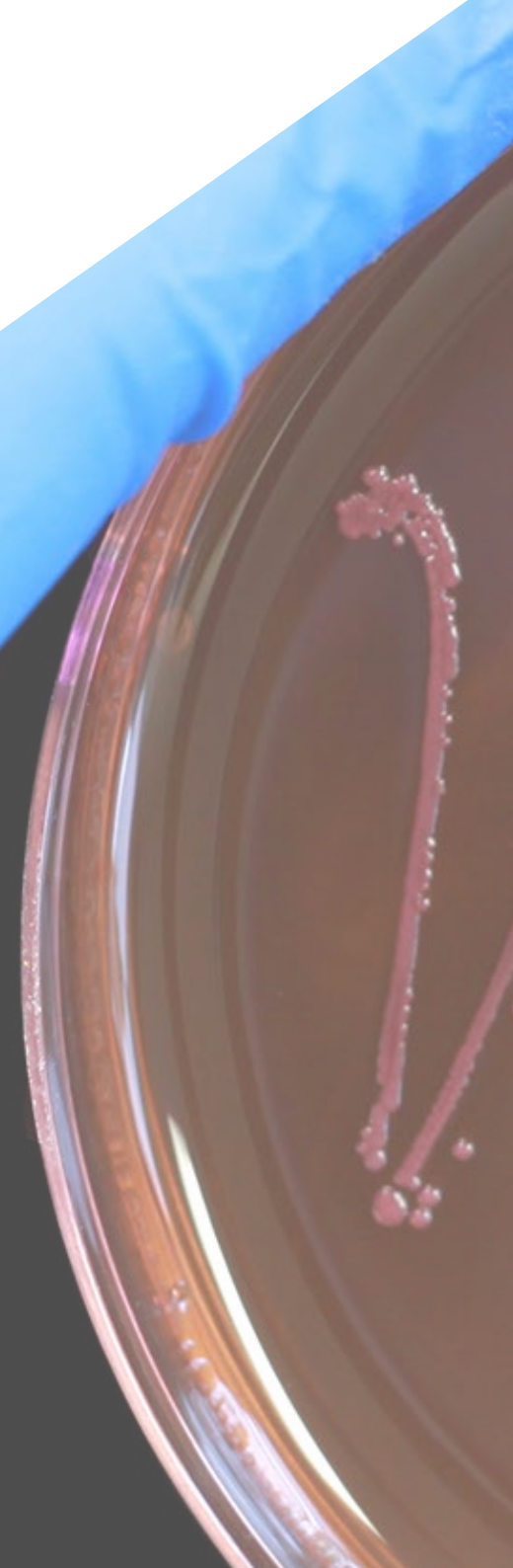
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01

Introduction

Multidrug-resistant bacteria, which have developed resistance to multiple classes of antibiotics, complicate treatment and increase morbidity and mortality associated with infections. To address this problem, advanced molecular diagnostic strategies are being implemented for accurate identification of pathogens and their resistance profiles in real time. In addition, a comprehensive approach that includes optimization of antibiotic use, implementation of stringent infection control measures, and development of new antimicrobial agents to combat these threats is being promoted. In this context, TECH has created a comprehensive, fully online program that is flexible and tailored to the individual needs of the student body. It is also based on the innovative learning methodology known as Relearning.



“

With this 100% online Postgraduate Diploma, you will immerse yourself in the causes and mechanisms of antibiotic resistance, as well as the health policies that influence its spread, facing this challenge effectively”

With the alarming increase in bacterial antibiotic resistance, clinical protocols have evolved towards a more personalized approach, using advanced molecular diagnostic techniques to rapidly identify pathogens and determine their resistance profiles. This integration of genomics and microbiology has enabled the development of targeted therapies and more effective prevention strategies.

In this way, this university diploma was born, which will address in depth the problem of multidrug-resistant bacteria in human pathology, exploring from the roots of antibiotic resistance, to determining factors such as the scarcity of new antibiotics, socioeconomic influences and health policies. It will also examine the global situation of resistance, providing updated statistics and regional trends to better understand the scope of the problem worldwide.

Furthermore, the syllabus will focus on the clinical management of patients with Multidrug-Resistant Infections in Intensive Care Units (ICU). Here, professionals will acquire specialized knowledge in diagnosis and treatment of frequent infections in critical settings, as well as advanced skills in the implementation of preventive measures to reduce the incidence and spread of these resistant bacteria within ICUs.

Finally, physicians will focus on Proteomics applied to Clinical Microbiology, delving into qualitative and quantitative techniques for the separation and identification of relevant bacterial proteins. In addition, they will be updated in the use of bioinformatics tools for the analysis of proteomic and genomic data, applying innovative approaches in the identification of resistance profiles and in the design of personalized therapeutic strategies against Multidrug-Resistant Bacteria.

Therefore, TECH has developed a complete, fully online and flexible university program that only requires an electronic device with an Internet connection to access all the teaching resources. In addition, it is based on the innovative Relearning methodology, which uses repetition of key concepts to ensure an effective and natural assimilation of information.

This **Postgraduate Diploma in Clinical and Molecular Management of Infections Caused by Multidrug-Resistant Bacteria** 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 Microbiology, Medicine and Parasitology
- ♦ 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



You will be equipped with the skills necessary to address the challenges associated with infections caused by Multidrug-Resistant Bacteria, including their clinical and molecular management. What are you waiting for to enroll?"

“

Bet on TECH! You will apply bioinformatics tools in Proteomics and Genomics, understanding antibiotic resistance at the molecular level and developing more precise and personalized therapeutic strategies”

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 and experienced experts.

You will examine the global situation of antibiotic resistance, according to current statistics and regional trends that impact the effectiveness of antimicrobial treatments. With all the TECH guarantees!

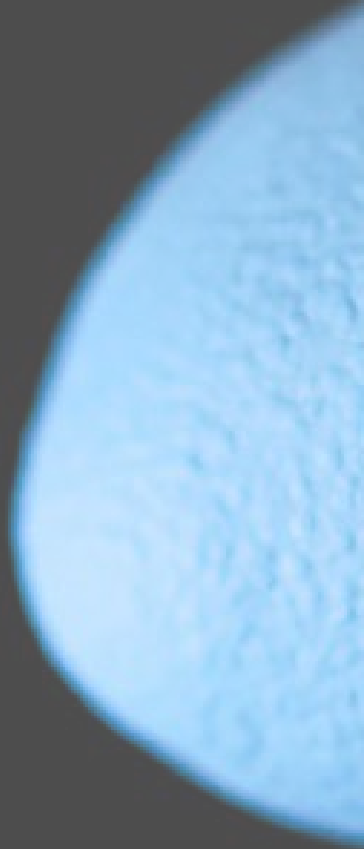
You will be updated in specialized knowledge for the diagnosis and treatment of the most common Multidrug-Resistant Infections in the ICU, through an extensive library of multimedia resources.



02

Objectives

The objectives of the university program will focus on providing physicians with specialized and updated knowledge on the complex problem of antibiotic resistance. Therefore, professionals will be specialized in the accurate diagnosis, effective treatment and active prevention of infections caused by Multidrug-Resistant Bacteria, especially in critical environments such as the ICU. In addition, it will deepen the understanding of the molecular basis of bacterial resistance through Proteomics and Genomics, promoting the development of innovative and personalized therapeutic strategies.





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This program will prepare experts capable of understanding and analyzing the causes of antibiotic resistance, applying molecular and bioinformatics techniques for the accurate diagnosis of resistant pathogens”



General Objectives

- ♦ Understand how bacterial resistance evolves as new antibiotics are introduced into clinical practice
- ♦ Understand the colonization and infection of patients in Intensive Care Units (ICUs), the different types and risk factors associated with infection
- ♦ Evaluate the impact of Nosocomial Infections in the critically ill patient, including the importance of risk factors and their impact on length of stay in the ICU
- ♦ Substantiate the importance of Proteomics and Genomics in the Microbiology laboratory including recent advances and technical and bioinformatics challenges



With these objectives, this Postgraduate Diploma will strengthen your clinical management of resistant infections, optimizing patient outcomes and contributing to the mitigation of the problem of antimicrobial resistance”





Specific Objectives

Module 1. Multidrug-Resistant Bacteria in Human Pathology

- ♦ Evaluate the causes of antibiotic resistance, from the lack of new antibiotics, to socioeconomic factors and health policies
- ♦ Examine the current status of antibiotic resistance in the world, including global statistics and trends in different regions

Module 2. Management of Patients with Multidrug-Resistant Bacterial Infections in Intensive Care Units (ICU)

- ♦ Acquire specialized knowledge on the diagnosis and treatment of common infections in ICUs
- ♦ Develop skills for the prevention of Multiresistant Bacterial Infections in the ICU

Module 3. Proteomics in Clinical Microbiology

- ♦ Delve into qualitative and quantitative techniques for protein separation and identification
- ♦ Apply bioinformatics tools for Proteomics and Genomics

03

Course Management

The faculty behind this Postgraduate Diploma in Clinical and Molecular Management of Infections Caused by Multidrug-Resistant Bacteria are recognized experts in clinical microbiology, molecular genetics, and infectious disease epidemiology. These professionals have a strong academic background and practical experience in multidrug-resistant bacteria, and are dedicated to innovative research and the application of advanced techniques in the diagnosis and treatment of these infections.



“

The faculty's ability to integrate theory with clinical practice will ensure quality, up-to-date and relevant teaching, empowering you to manage resistant infectious diseases”

Management



Dr. Ramos Vivas, José

- ♦ Director of the Banco Santander-Universidad Europea del Atlántico Chair in Innovation
- ♦ Researcher at the Center for Innovation and Technology of Cantabria (CITICAN)
- ♦ Academic of Microbiology and Parasitology at the European University of the Atlantic
- ♦ Founder and former director of the Cellular Microbiology Laboratory of the Valdecilla Research Institute (IDIVAL)
- ♦ PhD in Biology from the University of León
- ♦ Doctor in Sciences from the University of Las Palmas de Gran Canaria
- ♦ Degree in Biology from the University of Santiago de Compostela
- ♦ Master's Degree in Molecular Biology and Biomedicine from the University of Cantabria
- ♦ Member of: CIBERINFEC (MICINN-ISCIII), Member of the Spanish Society of Microbiology and Member of the Spanish Network of Research in Infectious Pathology

Professors

Dr. Ruiz de Alegría Puig, Carlos

- ♦ FEA at the University Hospital Marqués de Valdecilla, Cantabria
- ♦ Rotation in the Area of Molecular Biology and Fungi at the Hospital of Basurto, Bilbao
- ♦ Specialist in Microbiology and Immunology by the Marqués de Valdecilla University Hospital
- ♦ PhD in Molecular Biology and Biomedicine by the University of Cantabria
- ♦ Degree in Medicine and Surgery from the University of the Basque Country
- ♦ Member of: Spanish Society of Microbiology (SEM) and Center for Biomedical Research in Infectious Diseases Network CIBERINFEC (MICINN-ISCIII)



Dr. Suberviola Cañas, Borja

- ◆ Assistant Physician of the Intensive Care Medicine Service at the Marqués de Valdecilla University Hospital
- ◆ Principal Investigator and Collaborating Researcher in 6 projects with competitive funding
- ◆ Doctor in Medicine by the University of Cantabria
- ◆ Specialty in Intensive Care Medicine and Resuscitation at the Marqués de Valdecilla University Hospital in Santander
- ◆ Degree in Medicine from the University of the Basque Country
- ◆ Master's Degree in Infectious Diseases in the Critically Ill Patient from the University of Valencia
- ◆ Member and Vice-coordinator of the Working Group on Infectious Diseases and Sepsis (GTEIS) of the Spanish Society of Intensive Care Medicine, Critical Care and Coronary Units (SEMICYUC)
- ◆ Member of the Group of Infectious Diseases in the Critical Patient of the Spanish Society of Infectious Diseases and Clinical Microbiology (SEIMC)

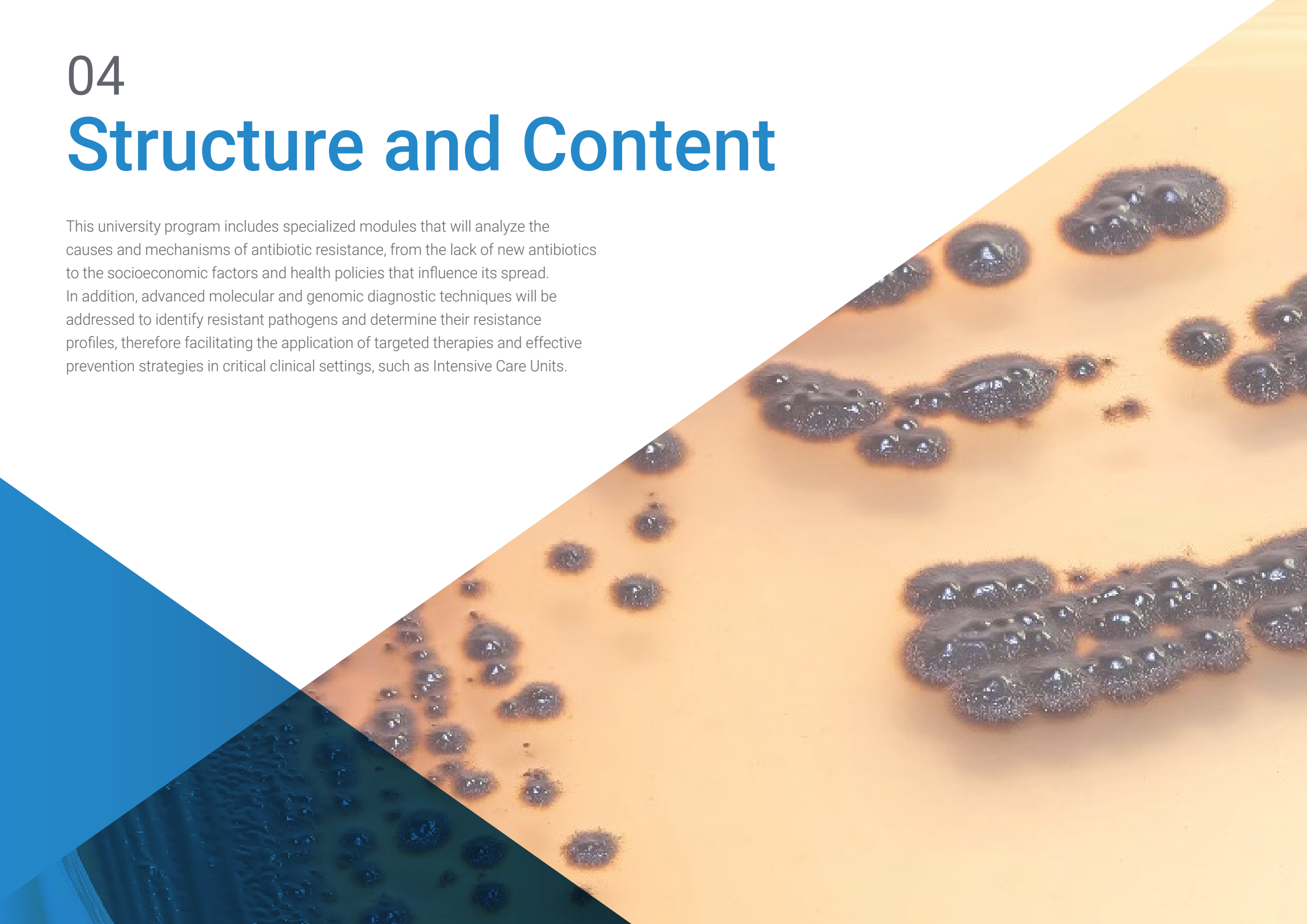


A unique, crucial and decisive learning experience to boost your professional development"

04

Structure and Content

This university program includes specialized modules that will analyze the causes and mechanisms of antibiotic resistance, from the lack of new antibiotics to the socioeconomic factors and health policies that influence its spread. In addition, advanced molecular and genomic diagnostic techniques will be addressed to identify resistant pathogens and determine their resistance profiles, therefore facilitating the application of targeted therapies and effective prevention strategies in critical clinical settings, such as Intensive Care Units.





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The content of this Postgraduate Diploma will cover a wide range of topics crucial to the understanding and treatment of Multidrug-Resistant Bacteria, supported by the Relearning methodology”

Module 1. Multidrug-Resistant Bacteria in Human Pathology

- 1.1. Mechanisms of Acquired Resistance to Antibiotics
 - 1.1.1. Acquisition of Resistance Genes
 - 1.1.2. Mutations
 - 1.1.3. Acquisition of Plasmids
- 1.2. Mechanisms of Intrinsic Resistance to Antibiotics
 - 1.2.1. Blockage of Antibiotic Entry
 - 1.2.2. Modification of the Antibiotic Target
 - 1.2.3. Inactivation of the Antibiotic
 - 1.2.4. Antibiotic Expulsion
- 1.3. Chronology and Evolution of Antibiotic Resistance
 - 1.3.1. Discovery of Antibiotic Resistance
 - 1.3.2. Plasmids
 - 1.3.3. Evolution of Resistance
 - 1.3.4. Current Trends in the Evolution of Antibiotic Resistance
- 1.4. Antibiotic Resistance in Human Pathology
 - 1.4.1. Increased Mortality and Morbidity
 - 1.4.2. Impact of Resistance on Public Health
 - 1.4.3. Economic Cost Associated with Antibiotic Resistance
- 1.5. Multidrug-Resistant Human Pathogens
 - 1.5.1. Acinetobacter Baumannii
 - 1.5.2. Pseudomonas Aeruginosa
 - 1.5.3. Enterobacteriaceae
 - 1.5.4. Enterococcus Faecium
 - 1.5.5. Staphylococcus Aureus
 - 1.5.6. Helicobacter Pylori
 - 1.5.7. Campylobacter Spp
 - 1.5.8. Salmonellae
 - 1.5.9. Neisseria Gonorrhoeae
 - 1.5.10. Streptococcus Pneumoniae
 - 1.5.11. Hemophilus Influenzae
 - 1.5.12. Shigella Spp
- 1.6. Bacteria Highly Dangerous to Human Health: Update of the WHO List
 - 1.6.1. Critical Priority Pathogens
 - 1.6.2. High Priority Pathogens
 - 1.6.3. Pathogens with Medium Priority
- 1.7. Analysis of the Causes of Antibiotic Resistance
 - 1.7.1. Lack of New Antibiotics
 - 1.7.2. Socioeconomic Factors and Health Policies
 - 1.7.3. Poor Hygiene and Sanitation
 - 1.7.4. Health Policies and Antibiotic Resistance
 - 1.7.5. International Travel and Global Trade
 - 1.7.6. Dispersal of High-Risk Clones
 - 1.7.7. Emerging Pathogens with Resistance to Multiple Antibiotics
- 1.8. Antibiotic Use and Abuse in the Community
 - 1.8.1. Prescription
 - 1.8.2. Acquisition
 - 1.8.3. Misuse of Antibiotics
- 1.9. Current Status of Antibiotic Resistance in the World
 - 1.9.1. Global Statistics
 - 1.9.2. Central and South America
 - 1.9.3. Africa
 - 1.9.4. Europe
 - 1.9.5. North America
 - 1.9.6. Asia and Oceania
- 1.10. Perspectives on Antibiotic Resistance
 - 1.10.1. Strategies to Mitigate the Problem of Multidrug-Resistance
 - 1.10.2. International Actions
 - 1.10.3. Actions at the Global Level

Module 2. Management of Patients with Multidrug-Resistant Bacterial Infections in Intensive Care Units (ICU)

- 2.1. Colonization and Infection of Patients in ICUs
 - 2.1.1. Types of ICUs
 - 2.1.2. Epidemiology
 - 2.1.3. Risk Factors Associated with Infection in ICUs
- 2.2. Impact of Nosocomial Infections in the Critically Ill Patient
 - 2.2.1. Importance of Nosocomial Infections in ICUs
 - 2.2.2. Risk Factors for Nosocomial Infections
 - 2.2.2.1. Patient Factors
 - 2.2.2.2. Factors of the ICU Environment
 - 2.2.2.3. Factors Related to the Healthcare Personnel
 - 2.2.3. Impact of Nosocomial Infections in Immunocompromised Patients
 - 2.2.4. Impact on Length of Stay in the ICU
- 2.3. Pneumonia Associated with Mechanical Ventilation
 - 2.3.1. Etiology
 - 2.3.2. Diagnosis
 - 2.3.3. Treatment
- 2.4. Urinary Tract Infections Associated with Catheters
 - 2.4.1. Etiology
 - 2.4.2. Diagnosis
 - 2.4.3. Treatment
- 2.5. Primary Bacteremias and Catheter-Related Bacteremias
 - 2.5.1. Etiology
 - 2.5.2. Diagnosis
 - 2.5.3. Treatment
- 2.6. Pseudomembranous Colitis
 - 2.6.1. Etiology
 - 2.6.2. Diagnosis
 - 2.6.3. Treatment
- 2.7. Infections by Opportunistic Pathogens
 - 2.7.1. Etiology
 - 2.7.2. Diagnosis
 - 2.7.3. Treatment
- 2.8. Appropriate Use of Antibiotics
 - 2.8.1. Programs for the Optimization of Antibiotic use (PROA) in the ICU
 - 2.8.2. Antibiotic Therapy Strategies for the Treatment of Gram-Negative Patients
 - 2.8.3. Antibiotic Therapy Strategies for the Treatment of Gram-Positive Patients
 - 2.8.4. Antibiotic Therapy Strategies for the Treatment of Co-Infections
- 2.9. Strategies for the Prevention of BMR Infections in the ICU
 - 2.9.1. Hygiene Measures
 - 2.9.2. Infection Control Measures
 - 2.9.3. Protocols and Clinical Practice Guidelines
 - 2.9.4. Education and Training of ICU Personnel
 - 2.9.5. Participation of Patients and their Families
- 2.10. Infection Prevention Strategies in the ICU
 - 2.10.1. Infection Prevention Strategies in the ICU According to the Focus
 - 2.10.1.1. Pneumonia
 - 2.10.1.2. Bacteremia
 - 2.10.1.3. Urinary Infection
 - 2.10.2. Evaluation and Quality Indicators in the Prevention of Infections
 - 2.10.3. Evaluation and Continuous Improvement Tools
 - 2.10.4. Successful Examples of Infection Prevention in ICUs

Module 3. Proteomics in Clinical Microbiology

- 3.1. Proteomics in the Microbiology Laboratory
 - 3.1.1. Evolution and Development of Proteomics
 - 3.1.2. Importance in Microbiological Diagnosis
 - 3.1.3. Proteomics of Multi-Resistant Bacteria
- 3.2. Qualitative Protein Separation Techniques
 - 3.2.1. Two-Dimensional Electrophoresis (2DE)
 - 3.2.2. DIGE Technology
 - 3.2.3. Applications in Microbiology
- 3.3. Quantitative Protein Separation Techniques
 - 3.3.1. Isotopic Labelling
 - 3.3.2. High Performance Liquid Chromatography (HPLC)
 - 3.3.3. Mass Spectrometry (MS)
 - 3.3.3.1. MALDI-TOF Technologies in the Clinical Microbiology Laboratory
 - 3.3.3.1.1. VITEK®MS System
 - 3.3.3.1.2. MALDI Biotyper® System
- 3.4. MALDI-TOF Applications in Clinical Microbiology
 - 3.4.1. Identification of Microorganisms
 - 3.4.2. Characterization of Antibiotic Resistance
 - 3.4.3. Bacterial Typing
- 3.5. Bioinformatics Tools for Proteomics
 - 3.5.1. Proteomic Databases
 - 3.5.2. Protein Sequence Analysis Tools
 - 3.5.3. Visualization of Proteomic Data
- 3.6. Genomics in the Microbiology Laboratory
 - 3.6.1. Evolution and Development of Genomics
 - 3.6.2. Importance in Microbiological Diagnosis
 - 3.6.3. Genomics of Multi-Resistant Bacteria
- 3.7. Types of Sequencing
 - 3.7.1. Sequencing of Genes with Taxonomic Value
 - 3.7.2. Sequencing of Genes of Taxonomic Value
 - 3.7.3. Bulk Sequencing



- 3.8. Applications of Massive Sequencing in Clinical Microbiology
 - 3.8.1. Whole Bacterial Genome Sequencing
 - 3.8.2. Comparative Genomics
 - 3.8.3. Epidemiological Surveillance
 - 3.8.4. Microbial Diversity and Evolution Studies
- 3.9. Bioinformatics Tools for Genomics
 - 3.9.1. Genomic Databases
 - 3.9.2. Sequence Analysis Tools
 - 3.9.3. Visualization of Genomic Data
- 3.10. Future of Genomics and Proteomics in the Clinical Laboratory
 - 3.10.1. Recent and Future Developments in Genomics and Proteomics
 - 3.10.2. Development of New Therapeutic Strategies
 - 3.10.3. Technical and Bioinformatics Challenges
 - 3.10.4. Ethical and Regulatory Implications

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TECH's comprehensive and specialized approach will prepare you to meet the challenges related to Multidrug-Resistant Bacteria, promoting better clinical outcomes and efficient management of antimicrobial resistance”

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.

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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 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

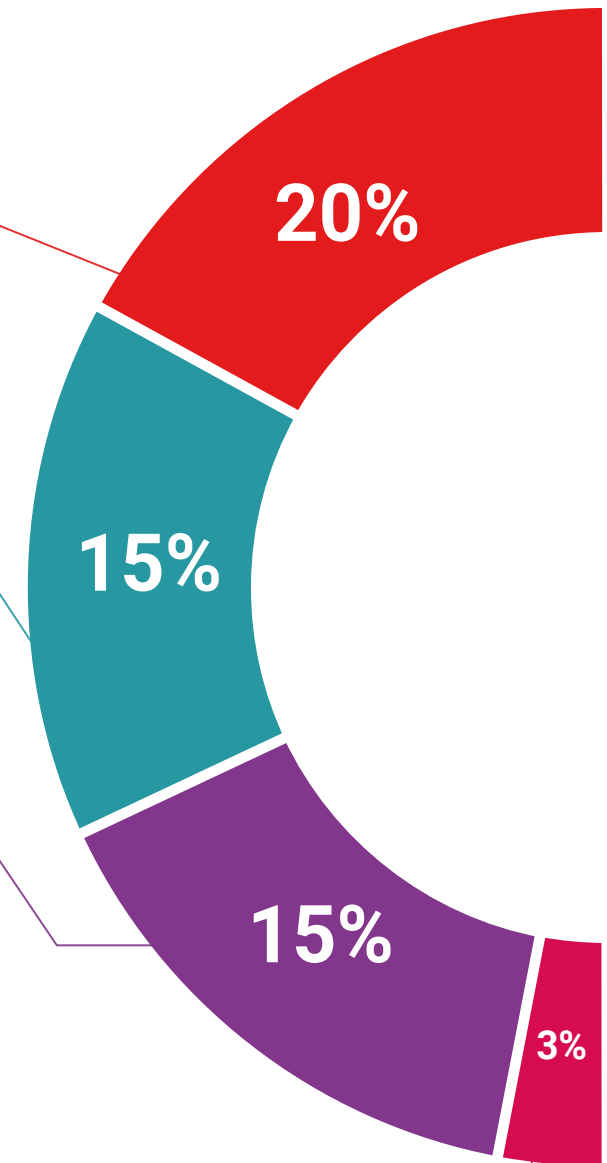
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

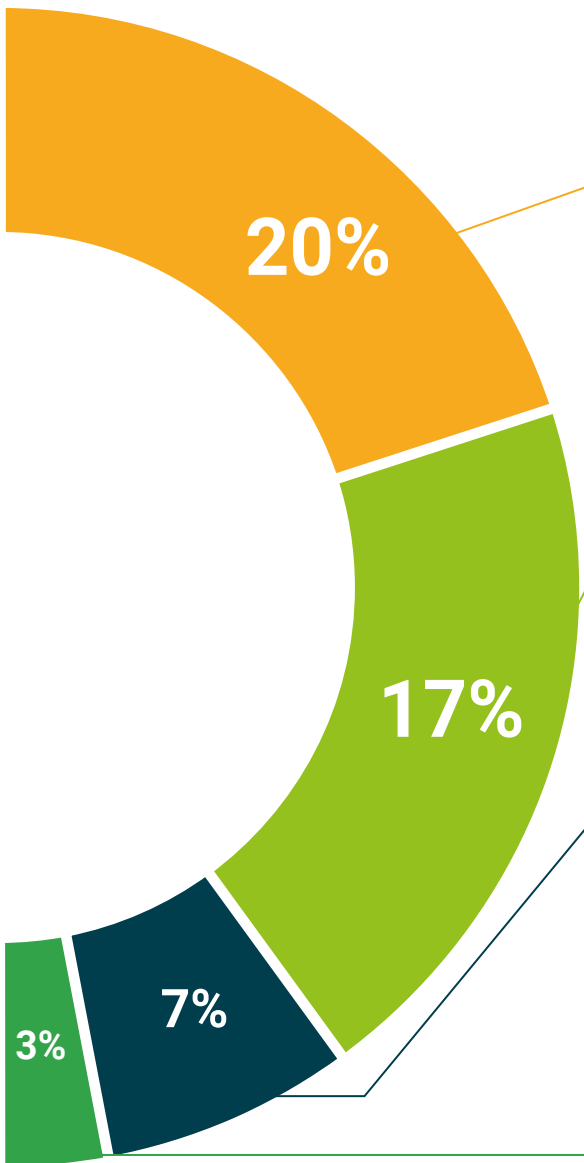
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



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 Clinical and Molecular Management of Infections Caused by Multidrug-Resistant Bacteria guarantees, in addition to the most accurate and up-to-date education, access to a Postgraduate Diploma 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 Clinical and Molecular Management of Infections Caused by Multidrug-Resistant Bacteria** 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.

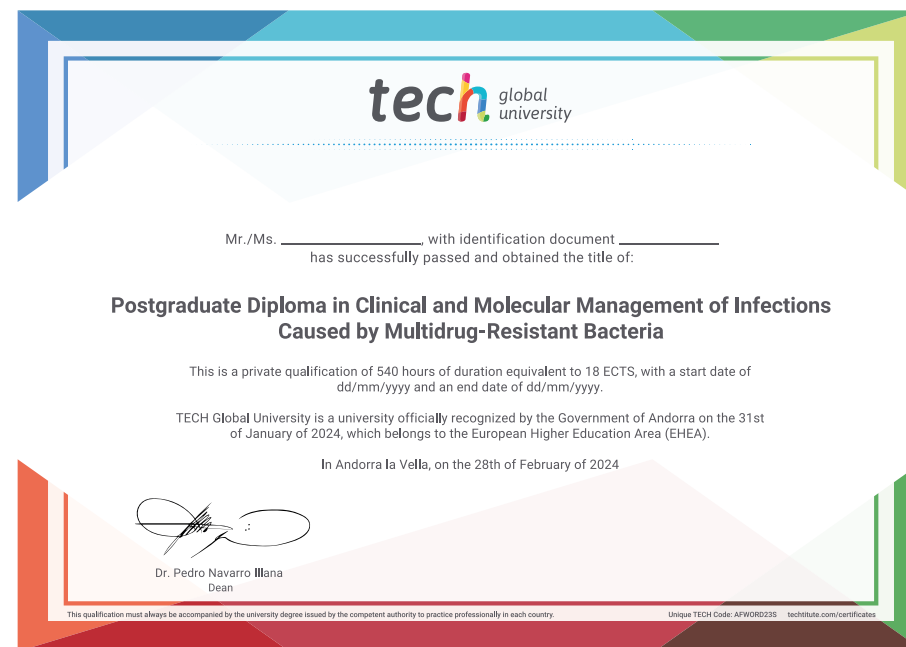
This **TECH Global University** private qualification is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Diploma in Clinical and Molecular Management of Infections Caused by Multidrug-Resistant Bacteria**

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

tech global
university

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