

# Postgraduate Certificate

## Viral Infections





## Postgraduate Certificate Viral Infections

Course Modality: **Online**

Duration: **6 weeks**

Certificate: **TECH Technological University**

**4 ECTS Credits**

Teaching Hours: **100 hours.**

Website: [www.techtute.com/medicine/postgraduate-certificate/viral-infections](http://www.techtute.com/medicine/postgraduate-certificate/viral-infections)

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# 01

# Introduction

Viral hemorrhagic diseases cause great alarm among the population and health professionals due to the high mortality rates they cause. For this reason, it is necessary for medical professionals to continue training throughout their careers, since, although these diseases are more common in developing areas, the advance of tourism allows them to reach any part of the world. Courses such as this will enable the professional to learn more about this type of diseases.



A close-up, microscopic view of several mosquito larvae (pupae) in a light-colored liquid. The larvae are elongated, segmented, and have a brownish-yellow color. They are surrounded by fine, hair-like structures. The background is a soft, out-of-focus white.

“

*Improve your knowledge in Viral Infections through this program, where you will find the best didactic material with real clinical cases. Learn here about the latest advances in the specialty to be able to perform a quality medical practice”*

Although viral hemorrhagic diseases and arboviruses occur mainly in tropical areas, anyone can be affected by them when traveling. It is therefore necessary to take preventive measures before traveling to such places, especially to avoid mosquito bites, which transmit many of these diseases.

They are also particularly alarming due to their high mortality rates in mainly the population of their countries of origin. These include diseases such as yellow fever, ebola, dengue fever and zika, which have caused great alarm in the present decade after the effects on newborns from their infected mothers were confirmed.

Despite scientific advances in the medical sciences, these diseases continue to have high morbidity rates, which is why it is imperative not to relent on investment in research in this field.

Consequently, this training aims to give healthcare professionals the necessary tools to become specialists in the diagnosis and treatment of this type of infections, which may be required anywhere around the world.

Thus, the teaching program herein comprises the most advanced and in-depth knowledge of the most prominent health problems in the field of viral infections, where a group of professors of high scientific rigor and extensive international experience provides the most complete and up-to-date information on this type of diseases.

This **Postgraduate Certificate in Viral Infections** contains the most complete and updated scientific program on the market. The most important features of the course are:

- Firstly, Clinical features, in order to address the health-infectious disease process in a particular person through the study of the most prevalent and deadly infectious diseases and, secondly, in Epidemiologic features, to study the behavior of the same phenomenon in a particular population.
- Training and professional development in the indication, performance and interpretation of the main state-of-the-art diagnostic tests to complement clinical skills in the diagnostic process. Emphasizing the most up-to-date microbiological tests used to rapidly diagnose germs and study antimicrobial resistance.
- Training and professional development in the complex and determining pathophysiological relationships between immune response and infectious agents.
- Training and professional development in germs related to neoplasms and chronic non-communicable diseases.
- Training and professional development in the development and production of vaccines for the control of morbidity and mortality due to infectious diseases.
- Training and professional development in the important field of antimicrobial therapeutics, providing the best available information on the development and production of new antibiotics.



*Update your knowledge through the Postgraduate Certificate in Viral Infections.*

“

*This Postgraduate Certificate may be the best investment you can make in the selection of a refresher program for two reasons: in addition to updating your knowledge of Viral Infections, you will obtain a Postgraduate Certificate from TECH Technological University”*

Its teaching staff is made up of prestigious and renowned Cuban professionals with a long career in health care, teaching and research, who have worked in many countries on several continents, developing professional and teaching experience that they deliver in an extraordinary way in this **Postgraduate Certificate**.

The methodological design of this **Postgraduate Certificate**, developed by a multidisciplinary team of e-learning experts, integrates the latest advances in educational technology for the creation of numerous educational multimedia tools that allow the professional, based primarily on the problem-based learning method, to address real problems in their daily clinical practice, which will allow them to advance by acquiring knowledge and developing skills that will impact their future professional work.

It should be noted that the contents generated for this **Postgraduate Certificate**, as well as the videos, self-evaluations, clinical cases and exams, have been thoroughly reviewed, updated, and integrated by the professors and the team of experts that make up the work group to facilitate the learning process with a step-by-step approach in order to achieve the teaching program objectives.

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

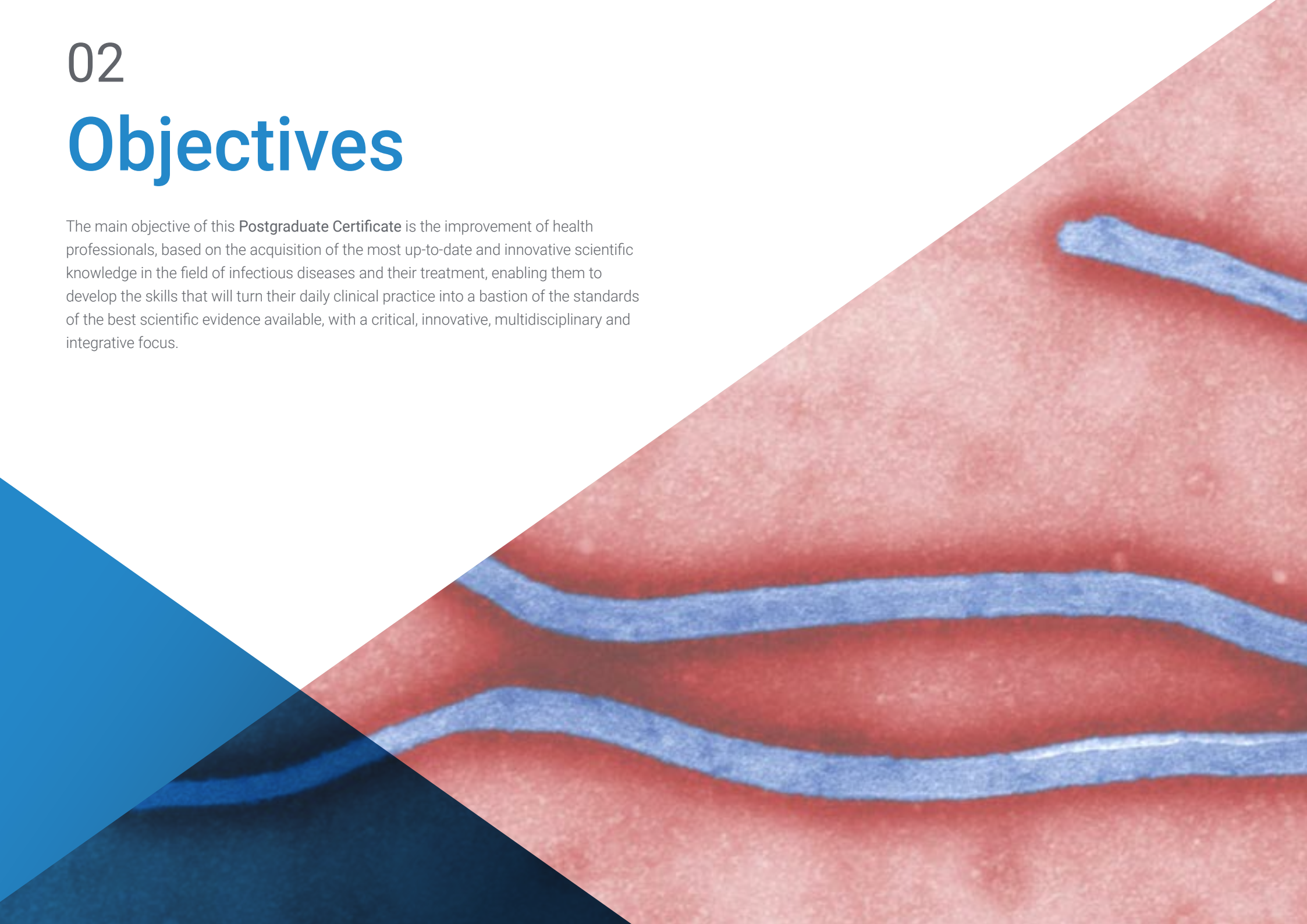
*Take the opportunity to learn about the latest advances in Viral Infections and improve your patient care.*



02

# Objectives

The main objective of this **Postgraduate Certificate** is the improvement of health professionals, based on the acquisition of the most up-to-date and innovative scientific knowledge in the field of infectious diseases and their treatment, enabling them to develop the skills that will turn their daily clinical practice into a bastion of the standards of the best scientific evidence available, with a critical, innovative, multidisciplinary and integrative focus.





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*This Postgraduate Certificate will help you to be more accurate in the diagnosis of Viral Infections.*



## 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 infectious diseases with a multidisciplinary and integrative approach that facilitates the control of these pathologies.





## Specific Objectives

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- ◆ Provide students with advanced, in-depth, updated, and multidisciplinary information that allows them to comprehensively approach the process of health-infectious diseases.
- ◆ Provide training and practical theoretical improvement that will enable a reliable clinical diagnosis supported by the efficient use of diagnostic methods to indicate an effective integral treatment.
- ◆ Substantiate the importance of the control of viral haemorrhagic diseases and the detailed study of the most frequent and deadly diseases for the reduction of morbidity and mortality worldwide.
- ◆ Highlight the role of vector control and the clinical epidemiological study of arbovirosis.

*Update your knowledge through this  
Postgraduate Certificate in Viral Infections.*

A green decorative line graphic consisting of a horizontal line, a vertical line, and a diagonal line forming a corner shape.

03

# Course Management

Renowned and recognized medical specialists with numerous publications, teaching experience, and professional experience in many countries, where many of the diseases studied have a high morbimortality, participate in the teaching program. The teaching staff is made up of a multidisciplinary team from various medical specialities, such as internal medicine, paediatrics, general surgery, gynaecology and obstetrics, microbiology, pathological anatomy, pharmacology, among others.





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*Learn from leading professionals the latest advances in infectious diseases and antibiotic management.*

## Guest Director



### Dr. Díaz Pollán, Beatriz

- Faculty Area Specialist La Paz University Hospital Since 2013
- Official Doctoral Programme in Clinical Medicine. Rey Juan Carlos University. 2014
- Degree in Medicine and Surgery. Autonomous University of Madrid. 1995
- Masters in Infectious Diseases and Antimicrobial Treatment. CEU - Cardenal Herrera University. 2018
- University Expert in Community and Nosocomial Infections. CEU - Cardenal Herrera University. 2018
- University Expert in Chronic Infectious Diseases and Imported Infections. CEU - Cardenal Herrera University. 2018
- University Expert in Microbiological Diagnosis, Antimicrobial Treatment and Research in Infectious Pathology. CEU - Cardenal Herrera University. 2018
- Faculty Area Specialist San Carlos Clinical Hospital 2001-2013
- Resident doctor. San Carlos Clinical Hospital 1996-2001

## Co-Direction



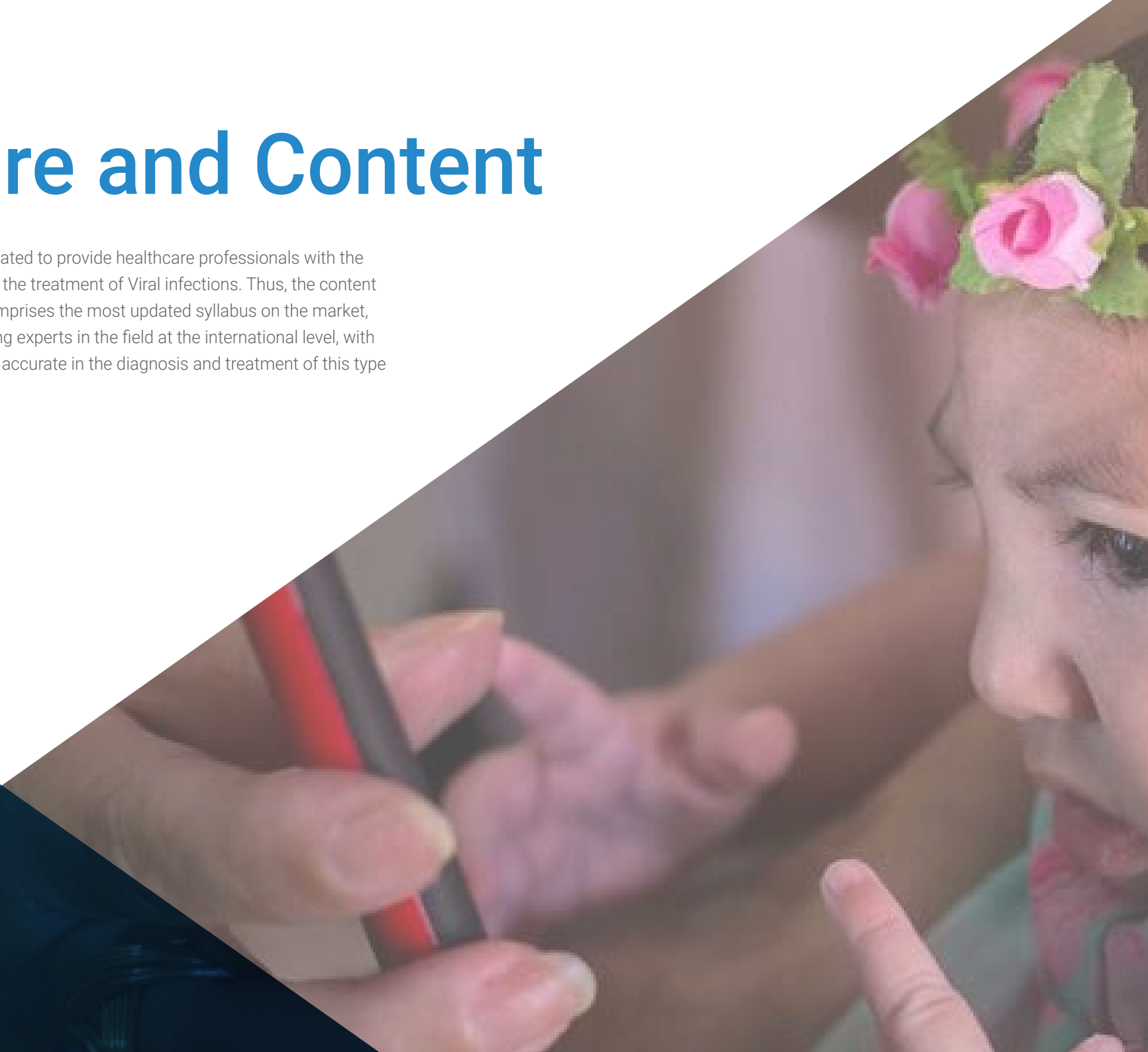
### **Dr. Quintero Casanova, Jesús**

- Attending physician and professor of medicine. General Teaching Hospital Héroes del Baire
- 1st and 2nd Degree Specialist in Internal Medicine
- Assistant Professor of the Speciality
- Master's Degree in Clinical Infectious and Tropical Diseases
- Teacher of Excellence Award. FCM IJ. 2009
- Alma Mater Prize of the FEU (in the years: 2008, 2009, 2015, 2016 y 2017)

# 04

## Structure and Content

The teaching program has been created to provide healthcare professionals with the necessary tools for daily practice in the treatment of Viral infections. Thus, the content of this **Postgraduate Certificate** comprises the most updated syllabus on the market, which has been developed by leading experts in the field at the international level, with the aim of making specialists more accurate in the diagnosis and treatment of this type of infections.







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*This Postgraduate Certificate in Viral Infections contains the most complete and updated scientific program on the market”*

## Module 1 Viral Haemorrhagic Diseases and Arboviruses

- 1.1. Viral Hemorrhagic Diseases
  - 1.1.1. Epidemiology
  - 1.1.2. Classification
  - 1.1.3. Diagnostic Approach to Viral Haemorrhagic Diseases
  - 1.1.4. The Development of Vaccines for New Diseases
  - 1.1.5. Measures for the Control of Viral Haemorrhagic Diseases
- 1.2. Ebola Haemorrhagic Fever
  - 1.2.1. Characteristics and Replicative Cycle of the Virus
  - 1.2.2. Clinical Picture
  - 1.2.3. Diagnosis
  - 1.2.4. Treatment
- 1.3. South American Hemorrhagic Fevers
  - 1.3.1. Characteristics and Replicative Cycle of the Virus
  - 1.3.2. Clinical Picture
  - 1.3.3. Diagnosis
  - 1.3.4. Treatment
- 1.4. Arbovirus:
  - 1.4.1. Epidemiology
  - 1.4.2. Vector Control
  - 1.4.3. Other Arboviruses
- 1.5. Yellow Fever.
  - 1.5.1. Concept
  - 1.5.2. Replicative Cycle of the Virus
  - 1.5.3. Clinical manifestations
  - 1.5.4. Diagnosis
  - 1.5.5. Treatment
- 1.6. Dengue.
  - 1.6.1. Concept
  - 1.6.2. Replicative Cycle of the Virus
  - 1.6.3. Clinical manifestations
  - 1.6.4. Diagnosis
  - 1.6.5. Treatment



- 1.7. Chikungunya
  - 1.7.1. Concept
  - 1.7.2. Replicative Cycle of the Virus
  - 1.7.3. Clinical manifestations
  - 1.7.4. Diagnosis
  - 1.7.5. Treatment
- 1.8. Zika
  - 1.8.1. Concept
  - 1.8.2. Replicative Cycle of the Virus
  - 1.8.3. Clinical manifestations
  - 1.8.4. Diagnosis
  - 1.8.5. Treatment



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

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. 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 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). Hence, 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

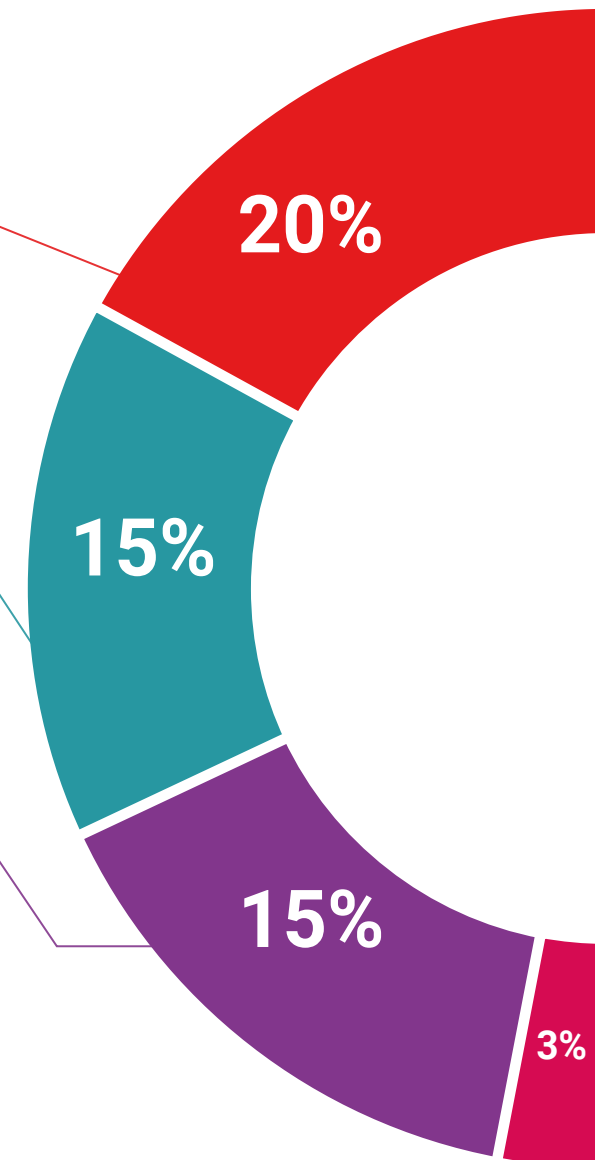
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

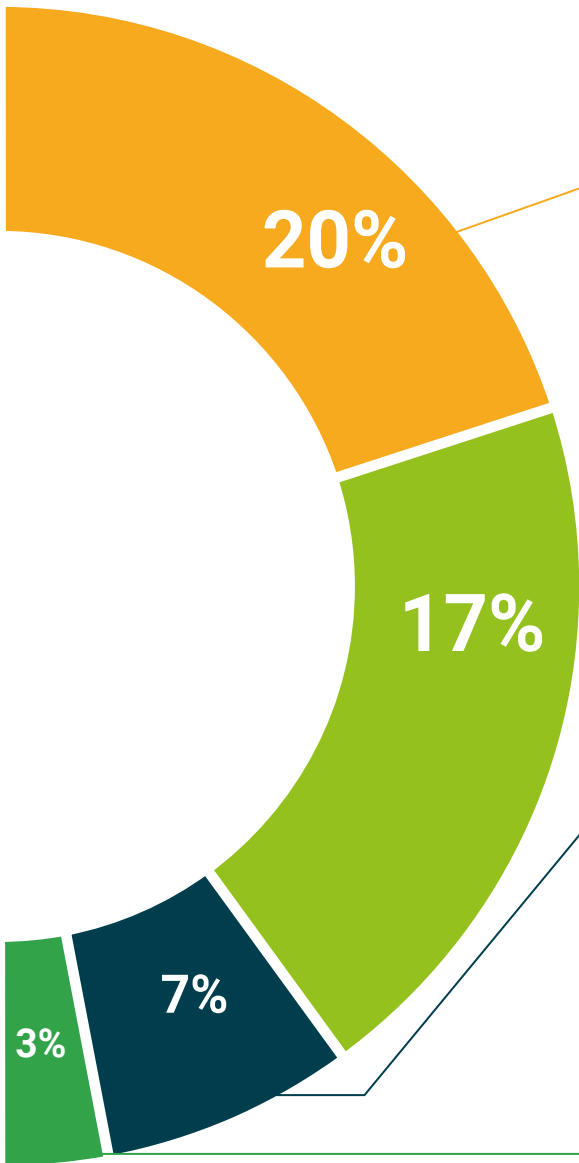
This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".



#### 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 Certificate in Viral Infections** guarantees, in addition to the most rigorous and updated specialization, access to a Postgraduate Certificate issued by **TECH Technological University**.



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*Successfully complete this training and receive your university degree without travel or laborious paperwork.*

This **Postgraduate Certificate in Viral Infections** contains the most complete and updated scientific program on the market.

After the student has passed the evaluations, they will receive by certified mail their corresponding **Postgraduate Certificate** issued **TECH Technological University**.

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

Title: **Postgraduate Certificate in Viral Infections**

ECTS: **4**

Official Number of Hours: **100**



\*Apostille Convention. In the event that the student wishes to have their paper certificate 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 quality

online training

development languages

virtual classroom

**tech** technological  
university

**Postgraduate Certificate**  
Viral Infections

Course Modality: Online

Duration: 6 weeks

Certificate: TECH Technological University

4 ECTS Credits

Teaching Hours: 100 hours.

# Postgraduate Certificate

## Viral Infections

