

# Postgraduate Certificate Pain Therapeutics





## Postgraduate Certificate Pain Therapeutics

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Credits: 8 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/medicine/postgraduate-certificate/pain-therapeutics](http://www.techtute.com/us/medicine/postgraduate-certificate/pain-therapeutics)

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# 01

# Introduction

Pain is currently one of the most common health care problems that we must address as medical professionals. In addition to the component of suffering it entails, it is associated with an intrinsic morbidity, consequence of the pathophysiological repercussions it produces in different systems of the organism. This Postgraduate Certificate provides specialists with an update on pain management procedures in a practical way.



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*New scenarios pain management procedures in in traumatology drive us to propose new specialization programs that meet the real needs of experienced professionals, so that they can incorporate new advances into their Doctor practice”*

The pharmacological and technological advances in the last decade have undoubtedly facilitated a comprehensive approach to pain. However, despite all this, the incidence of pain is high, being considered the main clinical complication that prevents surgical patient hospital discharge, and the main cause for failure in the outpatient surgery setting.

This Postgraduate Certificate aims to show all the conceptual, organizational, pharmacological and technological innovations related to the new approach to pain. Training specific units and multidisciplinary groups seeks to provide an effective response to this burdensome and frequent health problem.

It addresses all the most current topics in the treatment of chronic and acute postoperative pain, focusing especially on the latest aspects of its treatment and the various strategies to combat it. Likewise, we have tried to ensure that the topics chosen are of maximum interest to anesthesiologists or other physicians close to this specialty, with special emphasis on specialized loco-regional and invasive techniques management.

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*You will be able to learn, through the latest educational technology, the most recent advances in pain therapeutics”*

This **Postgraduate Certificate in Pain Therapeutics** is the most complete and up-to-date scientific program on the market. The most important features of the course are:

- ♦ Clinical cases presented by specialists in anesthesiology and other areas. The graphic, schematic, and eminently practical contents with which they are created, provide scientific and healthcare training on those medical disciplines that are essential to professional practice
- ♦ Real high-resolution images of pathologies, diagnostic imaging tests and guided procedures.
- ♦ Presentation of practical workshops on procedures and therapeutic techniques for pain control.
- ♦ An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course.
- ♦ All of this will be complemented by 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.

“ *This Postgraduate Certificate may be the best investment you can make when choosing a refresher program for two reasons: in addition to updating your knowledge of pain therapeutics, you will obtain a qualification from TECH Global University*”

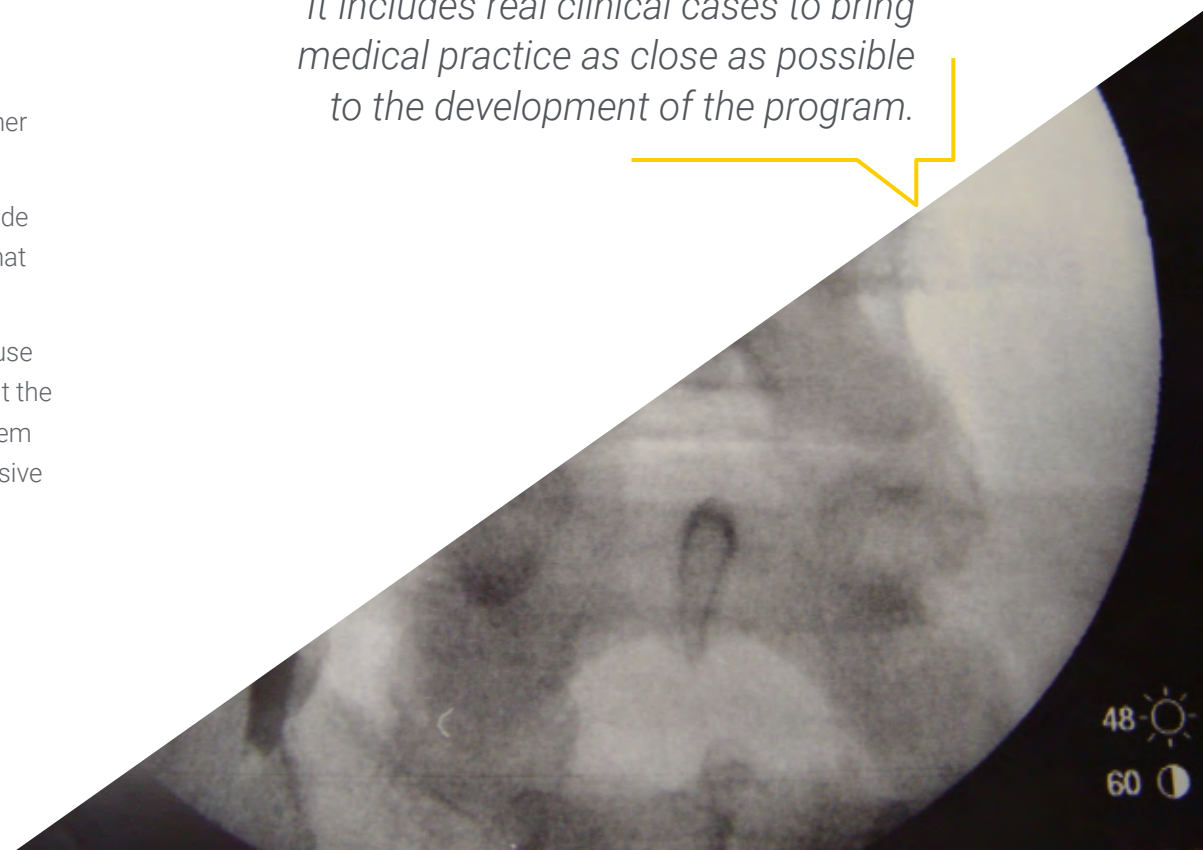
The teaching staff is made up of a team of leading anesthesiologists, who bring to this training the experience of their work, in addition to recognized specialists in other medical areas.

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

Problem-Based Learning underpins this program design, and the specialists must use it to try and solve the different professional practice situations that arise throughout the course. For this reason, you will be assisted by an innovative, interactive video system created by renowned and experienced experts in the field of psychology with extensive teaching experience.

*Incorporate the latest developments in Pain Therapeutics to your medical practice and improve patient prognosis.*

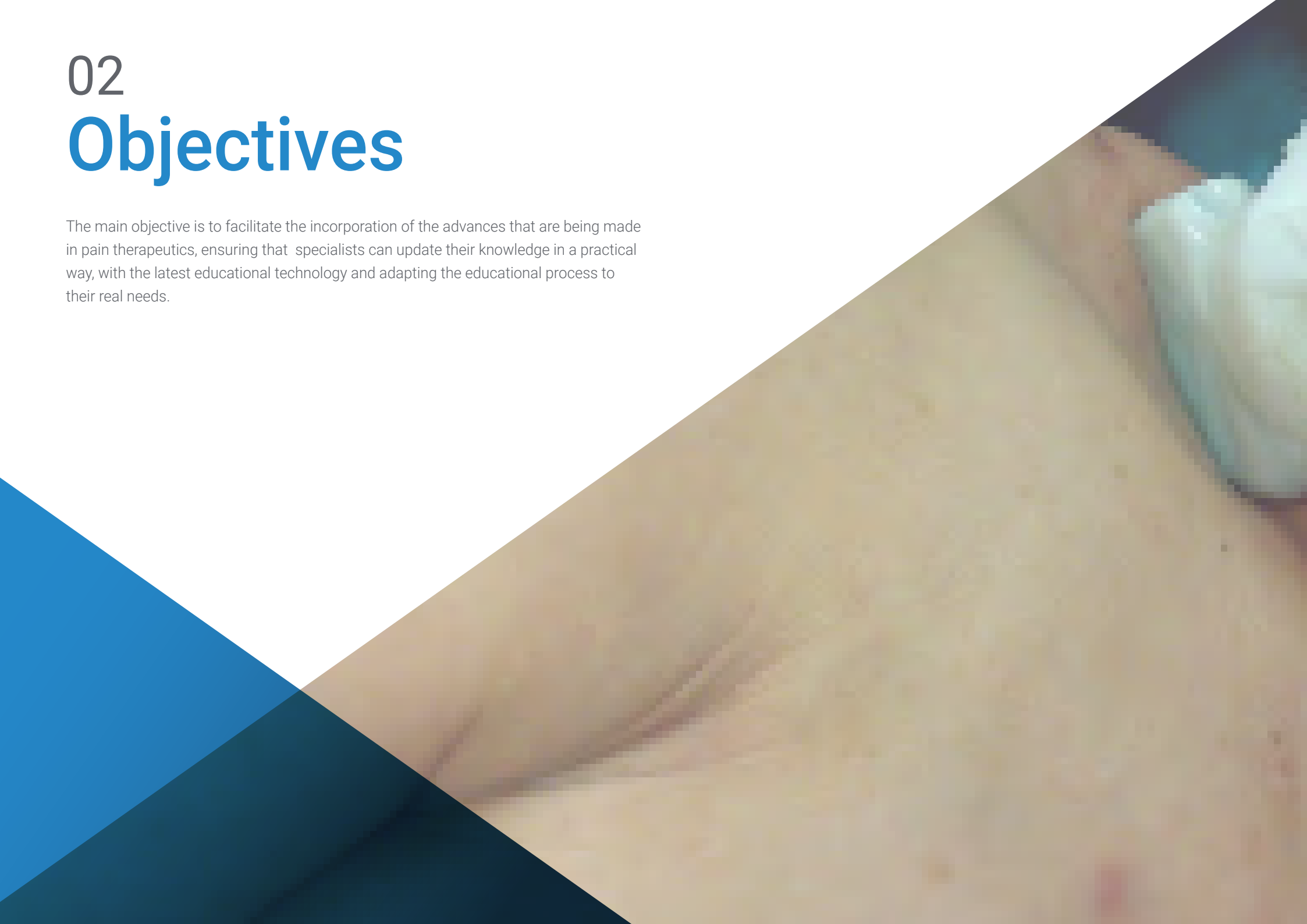
*It includes real clinical cases to bring medical practice as close as possible to the development of the program.*



02

# Objectives

The main objective is to facilitate the incorporation of the advances that are being made in pain therapeutics, ensuring that specialists can update their knowledge in a practical way, with the latest educational technology and adapting the educational process to their real needs.





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*This refresher program will generate a sense of confidence in decision making during pain control procedures for patients, and will help you grow professionally”*



## General Objective

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- Update specialist physician knowledge in procedures and therapeutic techniques to control pain in the patient, incorporating these advances to increase the quality of their daily medical practice and improve prognosis.

*Seize the opportunity and take the step to get up-to-date on the most important aspects of Pain Therapeutics.*





## Specific Objectives

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- ♦ Update procedures of multimodal approach to postoperative pain, as well as its characteristics and the evaluation of acute postoperative
- ♦ Incorporate advances in patient-controlled analgesia procedures into routine practice
- ♦ Update pharmacological applications in the regional anesthesia setting (ketamine, clonidine, neostigmine, corticosteroids, and NSAIDs)
- ♦ Update the technical procedure that facilitates the approach to the different techniques for regional anesthesia
- ♦ Describe progress on specific blockages: PECs block, TAP blocks, serratus block, rectus abdominis sheath block, ilioinguinal and iliohypogastric block
- ♦ Describe advances in specific blocks: interscalene, supraclavicular, infraclavicular, axillary and terminal nerve blocks
- ♦ Describe the advances in specific blocks: femoral, femorocutaneous, interfascial, obturator, sciatic, terminal blocks at thigh, leg and foot level
- ♦ Refer and detect potential complications derived from the performance of regional technique
- ♦ Assess the implications of patient safety in anesthesia-
- ♦ Incorporate new concepts in the pathophysiology of chronic pain into daily practice, such as hyperalgesia, hyperexcitability, neuromodulation, transition from acute to chronic pain and other emerging concepts in pain pathophysiology
- ♦ Update on chronic pain assessment instruments, such as questionnaires, self-recording, health monitoring systems and other novel pain assessment tools, such as computerized quantitative sensory assessment, infrared thermography and other instruments for assessing the intensity or other components of pain
- ♦ Review diagnostic imaging procedures in chronic pain
- ♦ Incorporate the contributions of imaging techniques (CT, MRI, scintigraphy, SPECT, SPECT-CT) in the diagnosis and treatment of chronic pain into diagnostic practice
- ♦ Develop the psychosocial approach to chronic pain in painful experiences and psychosocial factors that modulate pain intensity
- ♦ Incorporate pharmacological novelties in analgesia, especially the new drug delivery systems and the contributions of new adjuvants in the treatment of chronic pain.
- ♦ Update on ultrasound-guided invasive procedures in the treatment of pain. Use of ultrasound as a guide for invasive techniques in the treatment of chronic pain. Use of ultrasound to guide invasive techniques in chronic pain management

03

# Course Management

The materials have been created by a team of leading professionals in the field of pain therapeutics, who work in prestigious hospitals. Additionally, other recognized specialists participate in its design and preparation, which means that the program is developed in an interdisciplinary manner.





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*Learn the latest advances in therapeutic procedures for pain control from leading professionals”*

## International Guest Director

Dr. Betelehem M. Asnake is a leading anesthesiologist with an extensive international career, noted for her commitment to health equity and medical education. She has practiced in San Francisco, California, at Kaiser Permanente Medical Centers in Oakland and Richmond. In addition, she has held an important role as Director of Global Health Initiatives at UCLA Health, considered one of the best hospitals in the United States, and ranked first in both California and Los Angeles in a comprehensive assessment of excellence in patient care.

In addition to her clinical practice, she has been recognized for her passionate work in coaching and promoting diversity in Medicine. In this regard, she has founded MuluMentor, a virtual platform designed to support medical students from underrepresented and disadvantaged backgrounds. This program has facilitated the connection between these students and healthcare professionals in reviewing medical school applications, preparing for the MCAT and obtaining letters of recommendation. In this way, the platform has had a significant impact on inclusion and support for future physicians.

In turn, Dr. Betelehem M. Asnake has been a key international figure in bridging educational gaps in the field of Anesthesia. In fact, she has worked as a facilitator of the SAFE course in Tanzania, teaching safe anesthesia in remote areas. She has also been a co-leader of COVID-19 response teams and has collaborated with the World Society of Anesthesia in the development of international standards of post-anesthesia care. In addition, her role as a peer reviewer for the COVID-19 Repository for Ethiopian Health Professionals has highlighted her commitment to the global improvement of medical education in low-resource settings.



## Dr. Asnake, Betelehem M.

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- ♦ Director of Global Health Initiatives at UCLA Health, Southern California, United States
- ♦ General Anesthesiologist at UCLA Health
- ♦ General Anesthesiologist at Kaiser Permanente Oakland and Richmond Medical Centers
- ♦ Founder of MuluMentor
- ♦ General Anesthesiologist at Zuckerberg General Hospital and Trauma Center
- ♦ Global Health Equity Fellow at Zuckerberg General Hospital & Trauma Center
- ♦ Anesthesiology Specialist from the University of California
- ♦ PhD in Medicine from the University of Virginia
- ♦ M.S., Pharmacology and Toxicology from the University of Virginia  
B.A., French Studies from the University of California

“

*Thanks to TECH, you will be able to learn with the best professionals in the world”*

## Management



### Dr. Muedra Navarro, Vicente

- Head of the Anesthesia Service at the General University Hospital Consortium of Valencia.
- Professor-Doctor of Anesthesiology at the Universitat de Valencia
- Degree in Medicine from the University of Valencia
- MIR Specialist in Anesthesiology, Resuscitation and Pain Therapeutics at La Fe University Hospital in Valencia
- PhD in Medicine and Surgery from the University of Valencia
- Professor of the Department of Biomedical Sciences. Faculty of Medicine. CEU Cardenal Herrera University. Valencia
- Director of doctoral theses and Master's Degree theses
- Member of several Health Care Improvement Commissions at La Ribera University Hospital
- University Expert in the Comprehensive Management of the Airway, by the Catholic University of Valencia
- Vice-president of the Department of Anesthesiology and Critical Care in Cardiac Surgery of the Valencian Community
- Member of the Spanish Society of Anesthesiology, Resuscitation and Pain Therapy
- Member of the Spanish Society of Multimodal Rehabilitation
- Head researcher in several research projects with competitive funding from Public Institutions (Carlos III Health Institute)
- Collaborating Researcher in the Prometeo Program for research groups of Excellence in the Department of Education and Science at Generalitat Valenciana.
- Research member of the Translational Medicine Doctoral Program in the research line Multidisciplinary Intervention in Prevention and Clinical Therapeutics of International Doctoral School CEINDO



## Coordinator

### Dr. Domingo Triadó, Vicente

- ♦ Head of Department of Anesthesiology, Resuscitation, and Pain Management
- ♦ Lluís Alcanyís Hospital. Xàtiva-Valencia

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*A boost to your CV that will give you the competitiveness of the best-trained professionals in the job market”*



# 04

## Structure and Content

The structure of the syllabus has been designed by a team of professionals who understand the implications of medical training in pain management therapy, aware of the relevance of current training and committed to quality teaching through new educational technologies.





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*This Postgraduate Certificate in Pain Therapeutics is the most complete and up-to-date scientific program on the market”*

**Module 1.** New Concepts in Chronic Pain Pathophysiology

**Module 2.** Chronic Pain Assessment Instruments:

- 2.1. Sedation Scales
- 2.2. Exploration Methods

**Module 3.** Diagnostic Imaging in Chronic Pain

**Module 4.** Psychosocial Approach Chronic Pain

- 4.1. Psychological and Behavioral Therapy
- 4.2. Addiction Dehabituation

**Module 5.** Pharmacological Novelties in Analgesia

- 5.1. NSAIDS
- 5.2. Opioids
- 5.3. Topical:
- 5.4. Adjuvant Drugs
- 5.5. New Therapies

**Module 6.** Pain Treatment

- 6.1. Invasive Ultrasound-Guided Procedures
- 6.2. Epiduroscopy
- 6.3. Radiofrequency



**Module 7.** Invasive Ultrasound-Guided Procedures in Pain Treatment

**Module 8.** Epiduroscopy in Pain Diagnosis and Treatment

**Module 9.** Injection Techniques in Chronic Pain Treatment

**Module 10.** Spinal Infusion in Pain Management

**Module 11.** Neurostimulation Techniques in Chronic Pain

**Module 12.** Updates on Neuropathic Pain Treatment

**Module 13.** Updates on Myofascial Pain Treatment

**Module 14.** New Developments in Peripheral Vascular Pain and Refractory Angina Treatment

**Module 15.** New Approaches in Headaches and Orofacial Pain Treatment:

15.1. Headaches and Migraines

15.2. Facial and Post Herpetic Neuralgias

**Module 16.** Cervical Pain and Brachialgia

**Module 17.** Dorsolumbar Pain

**Module 18.** Pain in the Elderly

**Module 19.** Acute Postoperative Pain Strategies in Preventive and Multimodal Analgesia

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*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 an abundance of 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 really 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.

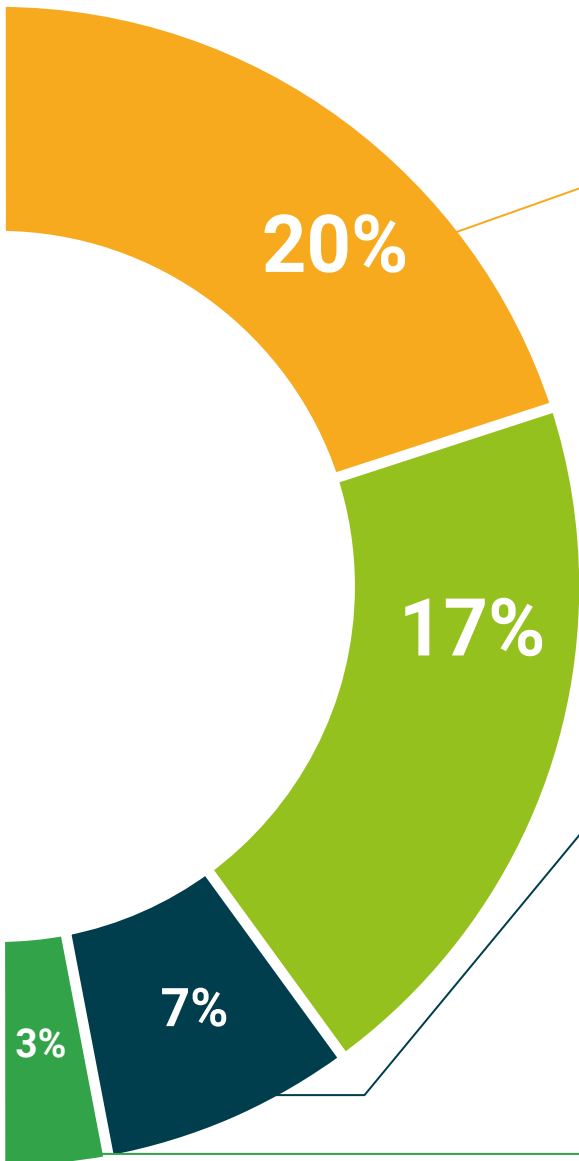
This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".



#### 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 & Retesting

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 difficult future 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 Pain Therapeutics guarantees, in addition to the most rigorous and updated specialization, access to a qualification issued by TECH Global University.



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*Successfully complete this training and receive your diploma without the hassle of travel or paperwork”*

This program will allow you to obtain your **Postgraduate Certificate in Pain Therapeutics** 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** title 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 Certificate in Pain Therapeutics**

Modality: **online**

Duration: **6 weeks**

Accreditation: **8 ECTS**



\*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH Global University will make the necessary arrangements to obtain it, at an additional cost.



future

health

confidence people

education information tutors

guarantee accreditation teaching

institutions technology learning

community commitment

personalized service innovation

knowledge present quality

online treatment

development languages

virtual classroom

**tech** global  
university

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