**Postgraduate Diploma** Locoregional Anesthesia and Pain Therapeutics



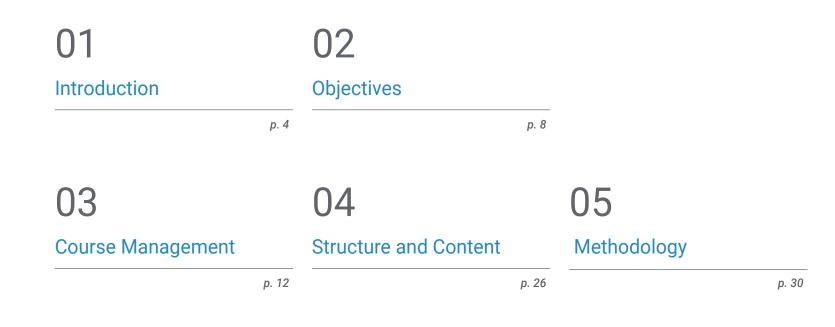


# **Postgraduate Diploma** Locoregional Anesthesia and Pain Therapeutics

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: www.techtitute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-locoregional-anesthesia-pain-therapeutics

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06 Certificate

# 01 Introduction

Pain is currently one of the most common health care problems faced by medical professionals. In addition to the component of suffering it entails, it is associated with an intrinsic morbidity, a consequence of the pathophysiological repercussions it produces in different systems of the organism. This program provides an update on the main procedures of locoregional anesthesia and pain management.



New scenarios in anesthesia procedures motivate us to propose new specialization programs that fit the real needs of experienced professionals, so that they can incorporate advances in local and regional anesthesia, and pain management, into their medical practice"

# tech 06 | Introduction

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 Diploma aims to show all the conceptual, organizational, pharmacological and technological innovations related to the new approach to pain. The specialization of specific units and multidisciplinary groups seeks to provide an effective response to this burdensome and frequent health problem.

It includes 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, the topics chosen are of maximum interest for anesthesiologists or other physicians close to this specialty, with special emphasis on the management of specialized locoregional and invasive techniques. There is no doubt that the incorporation of ultrasound to the surgical environment has facilitated, and at the same time has modified, professionals' behavior when performing the different locoregional techniques, optimizing results and reducing morbidity.

Furthermore, the proposed syllabus includes all the aspects that physicians should know about the pathophysiology, diagnosis and treatment of pain, both chronic and acute, with special emphasis on the new aspects that may have appeared in the different modalities of pain management. This **Postgraduate Diploma in Locoregional Anesthesia and Pain Therapeutics** contains the most complete and up-to-date scientific program on the market. The most important features include:

- 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 practical information on the disciplines that are essential for professional practice
- Real high-resolution images of pathologies, diagnostic imaging tests and guided procedures
- Presentation of practical workshops on procedures and techniques
- Algorithm-based interactive learning system for decision-making in the presented clinical situations
- Action protocols with the most important advances in the specialty
- All this will be complemented by theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- With a special emphasis on evidence-based medicine and research methodologies in anesthesiology
- Content that is accessible from any fixed or portable device with an Internet connection

You will learn, through the latest educational technology, the latest advances in local and regional anesthesia, and pain management"

# Introduction | 07 tech



This Postgraduate Diploma may be the best investment you can make when choosing a refresher program for two reasons: in addition to updating your knowledge of Locoregional Anesthesia and Pain Therapeutics, you will obtain a qualification from TECH Technological University"

The teaching staff is made up of a team of leading anesthesiologists, who bring to this specialization 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.

This program is designed around Problem Based Learning, whereby the student must try to solve the different professional practice situations that arise during 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 Locoegional Anesthesiology and Pain Therapeutics with extensive teaching experience. Add the latest developments in locoregional anesthesia and pain treatment 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 locoregional anesthesia and pain therapy procedures, 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.

This refresher program will generate a sense of confidence in decision making during locoregional anesthesia procedures and pain therapeutics, and will help you grow professionally"

# tech 10 | Objectives



# **General Objective**

• Update specialists' knowledge of the procedures and techniques performed in locoregional anesthesia and pain therapy, incorporating the latest advances to increase the quality of their daily medical practice and improve patient prognosis



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



# Objectives | 11 tech



# Specific Objectives

#### Module 1. Latest Advances in Anesthesiology

- Integrate in depth perioperative medicine and multimodal rehabilitation as the future of anesthesiology
- Get to know how to optimize goal-directed fluid therapy
- Be able to use clinical simulation as a teaching tool in postgraduate education
- Have a broad knowledge of Evidence-Based Medicine (EBM) in Anesthesiology
- Determine the latest developments in anesthesiology contributions to current
  patient expectations
- Integrate knowledge on new pharmacological advances in anesthesiology

#### Module 2. Regional Anesthesia

- Describe the use of pharmacology of local anesthetics and general anesthetic blocks
- Understand the basics of neurostimulation and ultrasonography for application to the gross anatomy of the cervical and brachial plexus
- Learn the microanatomical fundamentals of the meninges, nerves and interactive 3D reconstruction of the spine and its contents applied to regional anesthesia
- Get to know and develop Regional techniques of the upper limb, lumbar plexus and sacral plexus
- Integrate specific knowledge in the generalities, anatomy, technique, mechanism of action, indications, contraindications and complications when applying anesthesia and analgesia, subarachnoid, epidural and caudal

### Module 3. Pain Therapeutics

- Understand the fundamentals of pain neurobiology
- Learn how to perform a psychological assessment of the pain patient incorporating the latest advances in psychological intervention and treatment techniques
- Describe the clinical use of opioids, as well as their indications based on addiction and abuse
- Understand the new perspectives in the treatment of postoperative pain

# 03 Course Management

The materials have been created by a team of leading professionals in the field of locoregional anesthesia and pain management, 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 locoregional anesthesia and pain management from leading professionals"

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## Management



## Dr. Muedra Navarro, Vicente

- Responsible Coordinator of the Anesthesiology and Critical Care Area in Cardiac Surgery at Hospital Universitario La Ribera. Alzira-Valencia
- Degree in Medicine from the University of Valencia
- MIR Specialist in Anesthesiology, Resuscitation and Pain Therapeutics at La Fe University Hospital in Valencia
- Doctor of 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 Final Projects
- Member of several Healthcare 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 Section 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 for Multimodal Rehabilitation
- Principal Investigator in projects in various research projects with competitive funding from Public Organizations (Carlos III Health Institute)
- Collaborating Researcher of the Prometheus Program for research groups of Excellence of the Department of Education and Science of the Generalitat Valenciana
- Researcher member of the Translational Medicine Doctoral Program in the line of research Multidisciplinary intervention in prevention and clinical therapy, of the CEINDO International Doctoral School

# Course Management | 15 tech

# Professors

## Dr. Reina Perticone, Miguel Ángel

- Associate Professor School of Medicine CEU San Pablo University
- Associate Professor School of Medicine CEU San Pablo University
- Anesthesiology Service Madrid Montepríncipe University Hospital, Madrid

## Dr. Carmona García, Paula

- Specialist in Cardiothoracic Anesthesiology and Resuscitation
- Assistant Physician of Cardiothoracic Anesthesiology. La Fe University and Polytechnic Hospital, Valencia
- Assessor of the EAE/EACTA (European Association of Echocardiography and the European Association of Cardiothoracic Anaesthesiologists) for the evaluation and accreditation in transesophageal echocardiography
- Lecturer and speaker at courses and congresses on perioperative echocardiography and intensive care
- Specialist in Anesthesiology, Resuscitation and Pain Therapy, La Fe University and Polytechnic Hospital. Valencia
- Doctor of Medicine. University of Murcia
- Specialist in Anesthesiology and Resuscitation. General University Hospital Gregorio Marañón. Madrid
- Fellowship in Cardiovascular Anesthesia and Transesophageal Echocardiography. St Michael's University Hospital, Toronto, Canada
- European accreditation in transesophageal echocardiography by the EAE/EACTA (European Association of Echocardiography and the European Association of Cardiothoracic Anaesthesiologists)

# Dr. Llobell Sala, Francisca

- Medical Specialist in Anesthesiology, Resuscitation and Pain Therapy
- Denia Hospital. Valencia
- Degree in Medicine and Surgery from the University of Valencia
- Title of Medical Specialist (MIR) in Anesthesiology, Resuscitation and Pain Therapeutics

## Dr. González González, Antonio Manuel

- Medical Specialist in Anesthesiology, Resuscitation and Pain Therapy
- Marqués de Valdecilla University Hospital. Santander

## Dr. Pérez Carbonell, Ana

- Head of the Anesthesiology Service of the General University Hospital of Elche. Alicante
- Facultative Specialist in Anesthesiology, Resuscitation and Pain Therapy

# Dr. López Gómez, María Amparo

- Facultative Specialist in Anesthesiology, Resuscitation and Pain Therapy
- La Fe University and Polytechnic Hospital. Valencia

# Dr. Fernández Cruz, Jesús

- Medical Specialist in Anesthesiology, Resuscitation and Pain Therapy
- La Ribera University Hospital. Alzira-Valencia

## Dr. Vicente Guillén, Rosario

- Head of the Anesthesiology Section of the Hospital Universitario y Politécnico La Fe. Valencia
- Medical Specialist in Anesthesiology, Resuscitation and Pain Therapy

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## Dr. Domingo Triadó, Vicente

- Director of the Pain Unit at Lluís Alcanyis Hospital
- Head of the Department of Anesthesiology, Resuscitation and Pain Therapy. Lluís Alcanyis Hospital. Xàtiva-Valencia
- Medical Specialist in Anesthesiology and Resuscitation and Pain Therapy, Atenea Clinic
- Medical Specialist in Anesthesiology and Resuscitation and Pain Therapy. San Francisco de Borja Hospital, Gandia
- Assistant Physician. Pain Unit, Lluís Alcanyís Hospital
- Professor at the Faculties of Medicine and Podiatry of the Catholic University of Valencia San Vicente Mártir
- Principal investigator in phase II and III clinical trials in the research of new drugs for the treatment of pain
- Doctor of Medicine (M.D.PhD). University of Valencia
- Degree in Medicine. Faculty of Medicine, University of Valencia
- Specialty in Anesthesiology and Resuscitation in the Anesthesiology Department of the Germans Trias i Pujol Hospital of Badalona
- Master's Degree in Research Methodology: Design and Statistics in Health Sciences. Autonomous University of Barcelona
- European Diploma in Anesthesiology and Intensive Care. European Academy of Anesthesiology and Intensive Care
- Specialization in Hospital Management and Organization. Polytechnic University of Valencia
- Specialization in Clinical Management. Polytechnic University of Valencia
- Member of: Sedar, Spanish Society of Anesthesiology, Resuscitation and Pain Treatment, Valdolor, Valencian Pain Association, European Society of Anaesthesia (ESA), European Society of Regional Anaesthesia (ESRA), Spanish Pain Society (SED), International Association for The Study of Pain (IASP)

#### Dr. Carrera Burgaya, Anna

- Medical Doctor Specialized in Human Anatomy and Embryology
- Area Specialist of the Human Anatomy Department NEOMA Research Group
- Thesis supervisor in the doctoral program of medicine at the University of Barcelona
- Associate Professor of the University of Girona University
- Professor of Human Anatomy and Embryology. University of Girona
- Author of 2 books, 2 collective works and 7 articles in indexed journals
- Doctorate in Medicine. University of Barcelona
- Faculty of Medicine University of Girona

#### Dr. Montes Pérez, Antonio

• Hospital del Mar. Barcelona

#### Dr. Bermejo Marín, Ara

- Neurology, Physical Medicine and Rehabilitation Specialist
- Assistant Physician of the Pain Unit at Polytechnic University Hospital La Fe, Valencia
- Specialist in Physical Medicine and Rehabilitation. Polytechnic University Hospital La Fe, Valencia
- Specialist in Neurology. Polytechnic University Hospital La Fe, Valencia
- Degree in Medicine from the University of Seville

#### Dr. Martínez Romerosa, Beatriz

- A Coruña University Hospital Complex
- Medina del Campo Hospital. Valladolid
- Valladolid University Clinical Hospital
- Virgen de La Salud Hospital, Toledo

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- Madrid; Madrid University Hospital Group (HM); Francisco de Vitoria University; University of Barcelona; General University Hospital of Valencia
- Montepríncipe University Hospital.

#### Dr. Ortega Romero, Alejandro

• ASEPEYO Hospital. Coslada. Madrid

#### Dr. Belltall Olmos, Amparo

- Specialist in Anesthesiology and Resuscitation
- Resident Physician specializing in Anesthesiology and Resuscitation. Polytechnic and University Hospital La Fe, Valencia
- Research Assistant. Department of Anesthesiology and Resuscitation, Polytechnic and University Hospital La Fe, Valencia
- Author in the Electronic Journal of AnesthesiaR (ReAR)

### Dr. Pérez, Amparo

• La Fé University and Polytechnic Hospital

### Dr. Vicente Montaña, Ana María

- Madrid; Madrid University Hospital Group (HM); Francisco de Vitoria University; University of Barcelona; General University Hospital of Valencia
- Montepríncipe University Hospital

### Dr. López García , Andrés

- Madrid; Madrid University Hospital Group (HM); Francisco de Vitoria University; University of Barcelona; General University Hospital of Valencia
- Montepríncipe University Hospital

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## Dr. Errando Oyonarte, Carlos Luis

- Chief of Anesthesiology and Resuscitation Department
- Head of the Anesthesiology and Resuscitation Department of the Can Misses Hospital of the Health Area of Ibiza and Formentera
- Director of the surgical area. General University Hospital Consortium of Valenci
- Assistant physician of the department of Anesthesiology, Resuscitation and Pain Therapy at the General Hospital of Valencia
- Consultant for national and international health systems: Health Research Board, Ireland, Canary Health Service, National Institute of Academic Anaesthesia United Kingdom, SEDAR, Ministry of Health, Social Services and Equality, Spain
- Director of the Spanish Journal of Anesthesiology and Resuscitation, Spain
- Professor of Physiology, Faculty of Medicine, UCV San Vicente Mártir, Valencia, Spain
- Director of several doctoral theses and university master's degree programs
- Doctor of Medicine and Surgery
- Degree in Medicine. University of Cadiz
- Specialist in Anesthesiology and Resuscitation
- Master's Degree in Patient Safety and Health Risk Management, ISDE and Fundación del Colegio Oficial de Médicos de Madrid
- Member of the Spanish Society of Anesthesiology, Resuscitation and Pain Therapy

## Dr. Ruiz, Carlos Yarnoz

• Regional Hospital of Bidasoa. Biscay

# Dr. Del Olmo Rodríguez, Concepción

ASEPEYO Hospital. Coslada. Madrid; Getafe University Hospital. Madrid



# Course Management | 19 tech

#### Dr. Domenech Pascual, Estrella

- Anesthesiology, Resuscitation and Pain Therapeutics
- Specialist of the Department of Anesthesia, Resuscitation and Pain Therapy. La Valencia
- Assistant Physician. Department of Anesthesiology, Resuscitation and Pain Therapy. Manises Hospital
- Assistant Physician. Department of Anesthesiology, Resuscitation and Pain Therapy, San Francesc de Borja Hospital. Gandia
- Resident Internal Medicine. Anesthesiology, Resuscitation and Pain Therapy. University Clinical Hospital of Valencia
- Medical Specialist in Clinical Analysis. General Hospital of Valencia
- Degree in Medicine and Surgery. Faculty of Medicine. University of Valencia

### Dr. Yerga Pozo, Guadalupe

- Specialist in Anesthesiology and Resuscitation at the Virgen del Rocío University Hospital
- Scientific researcher specialized in the management of hemorrhage and the application of anesthesia in childbirth
- Member of SEDAR

## Dr. Giménez Jiménez, Inmaculada

- Anesthesia and resuscitation service
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## Dr. Palacio Abizanda, Francisco Javier

• Puerta del Hierro University Hospital. Madrid

### Dr. Reina de La Torre, Francisco

• Department of Medical Sciences Girona University

## Dr. Monzó, Enrique

• Montepríncipe University Hospital. Madrid

## Dr. Cruz Andreotti, Esperanza

- Doctor of Medicine Specialist in Anesthesiology
- Specialist of the Department of Anesthesiology and Resuscitation, Carlos Haya Regional University Hospital of Malaga
- Doctor of Medicine. University of Malaga
- Degree in Medicine. University of Malaga

## Dr. Ortigosa Solórzano, Esperanza

- ASEPEYO Hospital. Coslada
- Madrid ; ASEPEYO Hospital
- Coslada. Madrid; Hospital
- University of Getafe. Madrid

### Dr. Tomas, Francisco

• La Fe Valencia University and Polytechnic Hospital

### Dr. Yanes Vidal, Gabriel

- Specialist in Preanesthesia, Anesthesia and Resuscitation
- Anesthesiologist at the Virgen del Rocío University Hospital
- Anesthesiologist at the Anesthesiology and Resuscitation Unit of the Victoria Rey Clinic
- Degree in Medicine from the University of Seville
- Member of: AAEAR, SEDAR, APSAR

# tech 20 | Course Management

#### Dr. Zarragoikoetxea Jáuregui, Iratxe

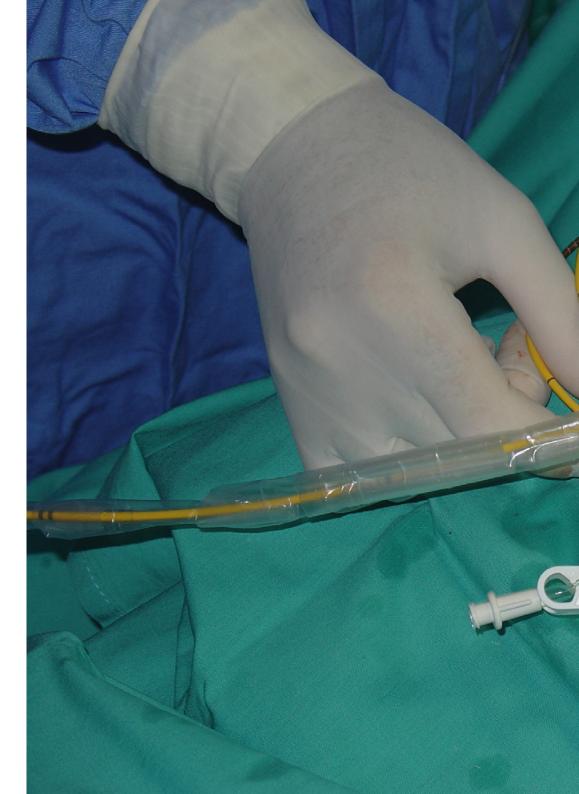
- Anesthesiology and Resuscitation Specialist
- Medical specialist in the Department of Anesthesiology, Resuscitation and Pain Therapy at the La Fe University and Polytechnic Hospital of Valencia
- Doctor of Medicine from the University of Valencia
- Member of SEDAR

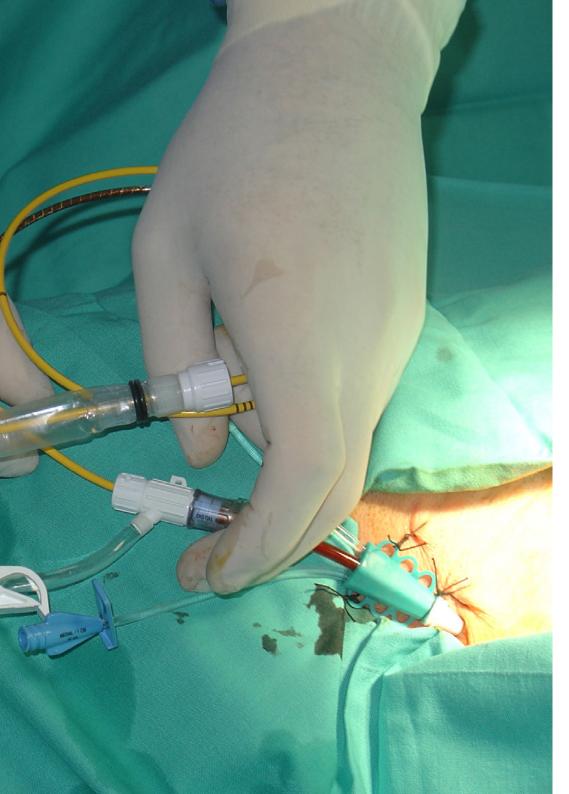
#### Dr. Catalá Ripoll, José Vicente

- Specialist in Anesthesia and Resuscitation
- Specialist Physician in Anesthesia and Resuscitation at San Francesc de Borja Hospital, Gandía
- Author of AnestesiaR, specialized medical journal and other scientific institutions
- Specialist Physician in Anesthesia and Resuscitation. Hospital Intermutual de Levante
- Specialist Physician in Anesthesia and Resuscitation. Consortium General University Hospital of Valencia
- Resident Physician in Anesthesiology. General University Hospital of Albacete
- Doctor of Medicine. University of Castilla La Mancha
- Degree in Medicine. Catholic University of Valencia San Vicente Martir

### Dr. Llau Pitarch, Juan Vicente

- Valencia Clinical Hospital
- Graduated in Medicine (Valencia-Spain)
- Anesthesiologist (MIR) Hospital "La Fe" (Valencia Spain) 1989-1992
- Department of Anesthesiology and Post-Surgical. Critical Care, Doctor Peset University Hospital, Valencia





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#### Dr. Miralles Sancho, Jaime

• Elche General University Hospital

### Dr. De Andrés Ibáñez, José Antonio

- Montepríncipe University Hospital.
- Madrid; Madrid University Hospital Group (HM); Francisco de Vitoria University; University of Barcelona; General University Hospital of Valencia

## Dr. Llopis Calatayud, Jose Emilio

• La Ribera University Hospital. Alzira

## Dr. Muñoz Rodes, José Luis

• General Hospital of Elche. Alicante

# Dr. Guinot Ruiz, Laura

• La Ribera University Hospital. Alzira

# Dr. Castro Parga, Luis Elías

- FEA Pediatric anesthesiology and resuscitation. Peace
- FEA Pediatric anesthesiology and resuscitation. HGU La Paz

# Dr. Valdés Vilches, Luis

- Head of the Anesthesiology Unit at Costa del Sol Hospital
- Head of the Anesthesiology Unit at the Costa del Sol Hospital
- Degree in Medicine from the University of Malaga
- Secretary General of the European Society of Anaesthesia
- Speaker at different congresses and scientific seminars as a specialist in Anesthesiology

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### Dr. Canós Verdecho, María Ángeles

- Head of the Multidisciplinary Pain Treatment Unit. La Fe University and Polytechnic Hospital
- Coordinator of the Multidisciplinary Pain Management Unit. La Salud Hospital
- Chronic Pain Specialist. Teclor Médica, Valencia
- Specialist in Anesthesiology and Resuscitation. La Fe University and Polytechnic Hospital of Valencia
- Author of the book "Desafía tu dolor: guía para la prevención y el manejo del dolor crónico" (Challenge your pain: a guide for the prevention and management of chronic pain)
- Master's Degree Professor. European University Miguel Cervantes of Valladolid
- Professor of Teaching Seminars for Undergraduate and Postgraduate of Anesthesiology, Resuscitation and Pain Therapy at La Fe University Hospital in Valencia, Valencia
- Professor of distance learning courses, organized by the Spanish Pain Society: Update in pain of the Spanish Pain Society
- Director of practical courses of Update in Neurostimulation. La Fe University and Polytechnic Hospital, Valencia
- Director of the Pain and Primary Care Conference at the La Fe University and Polytechnic Hospital, Valencia
- Master's Degree in Pain Treatment. Miguel de Cervantes European University
- Master's Degree in Health Management. Catholic University of Valencia
- Master's Degree in Administration and Management of Health Services. University
  of Valencia
- Member of: Spanish Pain Society, Neurosurgical Implant Advisory Committee of the General Directorate of Pharmacy and Health Products of the Valencian Community

#### Dr. Pajares Moncho, María Azucena

- La Fe University and Polytechnic Hospital
- Bachelor of Medicine and Surgery from the University of Valencia in 1991
- Specialist in Anesthesiology, Resuscitation and Therapeutics of pain between 1993-1996
- Clinical Chief of the Anesthesiology and Renaimation Service. Cardio-Thoracic Anesthesia and Circulatory Assistance Area

## Dr. López Viñals, Marta

• San Joan de Déu Hospital. Barcelona

## Dr. García Claudio, Natalia

• Anesthesia and Resuscitation Department, La Fe University Hospital, Valencia, Spain

## Dr. Carbonell Gutiérrez, Nuria

- Specialist in Cardiac Anesthesiology
- Assistant Physician of Anesthesiology. DARYD Dexeus University Hospital, Quirónsalud Group
- Resident Physician. DARYD Quirón Dexeus University Hospital
- Online Master's Degree in Clinical Management, Medical and Healthcare Management, Healthcare. CEU Cardenal Herrera University
- Master in Advanced Medical Skills: Acute and Perioperative Cardiac Intensive Care, Cardiac Anesthesiology. University of Barcelona
- Master's Degree in Clinical Research in Comprehensive Care of the Critically III and Emergencies. University of Barcelona
- Degree, Medicine and Surgery. Autonomous University of Barcelona

#### Dr. Fenollosa Vázquez, Pedro

- Specialist in Physical Medicine and Rehabilitation, expert in Pain Management
- Interim physician in the Pain Unit. La Fe University and Polytechnic Hospital of Valencia
- Assistant Physician (FEA). Therapeutic Pain Unit. La Fe University and Polytechnic Hospital of Valencia
- Pain Unit Physician. Castellón Hospital of Castellón
- Pain Unit Physician. Hospital Vithas Valencia
- Specialist in Pain Treatment. King Don Jaime Hospital
- Co-author of the clinical trial on intrathecal infusion of baclofen for spasticity, which led to the approval of this treatment by the Ministry
- Professor of the Master's Degree in Pain of the Spanish Pain Society
- Collaborator for the training in pain treatment of MIR doctors in the specialties of Anesthesiology, Rehabilitation and Family Medicine
- Training lectures and practical courses with continuous teaching on pain management for different specialties
- Author and Editor of books, book chapters and scientific publications
- Principal investigator of 2 R&D projects
- Invited speaker at international congresses
- Director of doctoral thesis on chronic pain
- Best In Class Award for the best Pain Unit in Spain on two occasions
- Doctor of Medicine outstanding "cum laude", University of Valencia
- Specialty via MIR in Rehabilitation and Physical Medicine, La Fe University and Polytechnic Hospital
- Degree in Medicine and Surgery, University of Valencia

• Member of: Valencian Pain Society, Illustrious College of Physicians of Valencia, Spanish Society of Rehabilitation and Physical Medicine, Spanish Pain Society, Editorial Committee of the Journal of the Spanish Pain Society, from its first issue to date, Valencian Society of Rehabilitation and Physical Medicine, Editorial Committee of the Journal Pain Research, Clinical and Therapeutics

#### Dr. Cuesta Montero, Pablo

- Specialist in Anesthesiology and Resuscitation
- Specialist in the Anesthesiology and Resuscitation Department. Albacete University Hospital Complex
- Specialist in the Anesthesiology and Resuscitation Department. General Hospital of Almansa
- Author for the specialized journal AnestesiaR
- Member of the Spanish Society of Rehabilitation and Physical Medicine

#### Dr. Sanabria Carretero, Pascual

• Assistant Physician, anesthesia service and critical and surgical care. Children's Hospital La Paz

#### Dr. De Diego Isasa, Pilar

- Anesthesiology, Resuscitation and Pain Treatment Service
- Monographic Hospital of Traumatology ASEPEYO, Coslada, Madrid

#### Dr. Aparicio Chagoyen, Rosa

- Specialist in Foreign Languages (English), ICT and education and integration of students with special educational needs in the ordinary classroom
- Madrid Autism Federation Collaborator

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## Dr. López Pérez, Rosa María

• University Hospital Complex of A. Coruña

## Dr. López Álvarez, Servando

• A Coruña University Hospital Complex. A Coruña; Medina del Campo Hospital. Valladolid; Valladolid University Clinical Hospital; Virgen de La Salud Hospital, Toledo

## Dr. Domingo Rufés, Tomás

- Specialist in Anesthesiology, Resuscitation and Pain Therapeutics
- Specialist in Anesthesiology and Resuscitation. Barnadolor
- Founding member of Barnadolor, Multidisciplinary Center for the Study and Treatment of Chronic Pain, Barcelona
- Physician of the Chronic Pain Unit, Bellvitge University Hospital, Barcelona
- Associate Professor of Human Anatomy at the UNIVERSITY OF BARCELONA, Faculty of Medicine. Bellvitge Campus
- Annual collaboration with the Vicente Ferrer Foundation
- Doctor "CUM LAUDE" at the University of Barcelona. Thesis: "Application of ultrasound-guided puncture in the treatment of chronic pain"
- Degree in Medicine and Surgery. Autonomous University of Barcelona. Vall d'Hebron Hospital Teaching Unit
- Specialist via MIR in Anesthesiology, Resuscitation and Pain Therapy. University Hospital of BELLVITGE

### Dr. Pons, Vicente Manuel

• University Hospital Complex of A. Coruña

### Dr. Monsalve Dolz, Vicente

• General University Hospital of Valencia

## Dr. Roqués Escolar, Vicente

- Specialist in Regional Anesthesia and Pain
- Quirónsalud Murcia Pain Unit Coordinator
- Specialist of the Anesthesiology and Resuscitation Service. Virgen de la Arrixaca Hospital
- Vice-president of ESRA Spain, European Society of Regional Anesthesia and Pain
- President of the Murcia Society of Anesthesia and Resuscitation
- Co-founder of IMEDAR, Mediterranean Institute of Regional Anesthesia and Pain
- Speaker at many national and international congresses
- Author or co-author of more than 500 communications to congresses
- Author and co-author of more than 50 national and international publications, book chapters and masters related to the specialty of anesthesia
- Graduate in Medicine from the Faculty of Medicine of Valencia
- Specialist in Anesthesiology and Resuscitation at Hospital Virgen de la Arrixaca. Murcia

## Dr. Lázaro Alcay, Juan José

- Head of the Anesthesiology Service at the Sant Joan de Dèu Hospital. Barcelona
- Facultative Specialist in Anesthesiology, Resuscitation and Pain Therapy

## Dr. Sánchez, Fernando

- Medical Specialist in Anesthesiology, Resuscitation and Pain Therapy
- La Ribera University Hospital. Alzira-Valencia

# Dr. Gómez Gómez, María

• La Ribera University Hospital. Alzira

## Dr. Mercader Alarcón, María

• General Hospital of Elche. Alicante

# Course Management | 25 tech

#### Dr. Saiz-Sapena, Nieves

• Hospital 9 de Octubre in Valencia

#### Dr. Sanjuán Villarreal, Tomás Alberto

- Anesthesiologist in the Cardiothoracic Anesthesia Department at the Miguel Servet University Hospital
- Anesthesiologist in the Obstetrics, General Surgery, Urology, Vascular Surgery
  and ENT Units of the Miguel Servet University Hospital
- Anesthesiologist at the Santa Creu i Sant Pau Hospital
- Doctor of Medicine from the University of Zaragoza
- Degree in Medicine from the University Rovira i Vergili



Make the most of this opportunity to learn about the latest advances in this subject to apply it to your daily practice"

# 04 **Structure and Content**

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The curriculum structure has been designed by a team of professionals that understand the implications of medical specialization in local and regional anesthesia and pain patient care, aware of the relevance of current specialization and committed to quality teaching through new educational technologies.

This Postgraduate Diploma in Locoregional Anesthesia and Pain Therapeutics is the most complete and up-to-date scientific program on the market"

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## Module 1. Latest Advances in Anesthesiology

- 1.1. Perioperative Medicine and Multimodal Rehabilitation: Future of Anesthesiology
- 1.2. Hemodynamic Optimization and Target-Guided Fluid Therapy
- 1.3. Clinical Simulation as a Teaching Tool in Postgraduate Education
- 1.4. Evidence-Based Medicine (EBM) in Anesthesiology
- 1.5. Contributions of Anesthesiology to Current Patient Expectations Pain Treatment
- 1.6. Pharmacological Developments in Anesthesiology
- 1.7. Perioperative Hemorrhage. Preoperative Optimization, Monitoring and New Transfusion Strategies
- 1.8. Research as a Source of Progress in Anesthesiology
- 1.9. New Antiplatelet and Anticoagulant Drugs. Involvement in Anesthetic Practice

#### Module 2. Regional Anesthesia

- 2.1. Pharmacology of Local Anesthetics. General Information on Anesthetic Blocks
- 2.2. Basis of Neurostimulation and Ultrasonography
- 2.3. Macroscopic Anatomy of the Cervical and Brachial Plexus
- 2.4. Microanatomy of the Meninges. Microanatomy of the Nerves. Interactive 3D Reconstruction of the Spine and its Contents Applied to Regional Anesthesia
- 2.5. Regional Upper Limb Techniques. Superficial Cervical Plexus Block. Brachial Plexus Approaches Above the Clavicle: Interscalenic Approach. Supraclavicular Approach
- 2.6. Regional Upper Limb Techniques. Brachial Plexus Approaches Under the Clavicle: Parasagittal-Paracoid Infraclavicular Approach. Infraclavicular Costoclavicular-Medioclavicular Approach
- 2.7. Brachial Plexus Approach at the Axillary Level. Blockage of the Terminal Branches of the Brachial Plexus. Suprascapular Nerve Block and Axillary Nerve Block
- 2.8. Regional Techniques for the Lumbar Plexus. Posterior Approach: Psoas Block. Anterior Approach: Femoral Nerve Block. Obturation Nerve Block. Lateral Femoral Cutaneous Nerve Block. Genitocrural Nerve Block. Blockage of the Internal Saphenous Nerve (Adductor Canal)
- 2.9. Regional Techniques for the Sacral Plexus. Sciatic Nerve Block at Parasacral Level. Sciatic Blockage at Gluteal Level. Blockage of the Sciatic Nerve at the Subgluteal-Mediofemoral Level. Sciatic Nerve Block at Popliteal Level. Blockage of the Terminal Branches of the Sciatic Nerve: Posterior Tibial Nerve, Common Peroneal Nerve, Deep Peroneal Nerve and Sural Nerve





# Structure and Content | 29 tech

- 2.10. Chest: PEC I-II. BRILMA (Blockage of the Lateral Cutaneous Branches of the Intercostal Nerves): Paravertebral Block
- 2.11. Abdomen: Blockage of the Ilioinguinal and Iliohypogastric Nerves: TAP. Lumbar Square Blockage. Locking of the Rectus Sheath
- 2.12. Anesthesia and Analgesia, Subarachnoid, Epidural and Caudal. General Information, Anatomy, Technique, Mechanism of Action, Indications, Contraindications and Complications
- 2.13. Ultrasound in Neuroaxial Blocks

#### Module 3. Pain Therapeutics

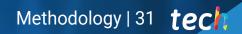
- 3.1. Pain Neurobiology
- 3.2. Psychological Assessment of the Patient with Pain Advances in Psychological Intervention and Treatment Techniques
- 3.3. Opioids. Clinical Use, Addiction and Abuse
- 3.4. Acute Postoperative Pain. New Treatment Perspectives
- 3.5. Pain Management in Palliative Care Patients
- 3.6. New Perspectives in Neurostimulation in the Treatment of Chronic Low Back Pain
- 3.7. Algorithms in the Treatment of Neuropathic Pain
- 3.8. Updates in Oncologic Pain
- 3.9. Ultrasound in Interventional Treatments in Pain Units
- 3.10. Conventional Radiofrequency and Pulsed Radiofrequency in the Treatment of Spine Pain
- 3.11. Rehabilitative Therapy in Pain Management

A unique, key, and decisive master's degree experience to boost your professional development"

# 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.



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"

# tech 32 | Methodology

# 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:

 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.
- 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.



# tech 34 | Methodology

# **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.



# Methodology | 35 tech

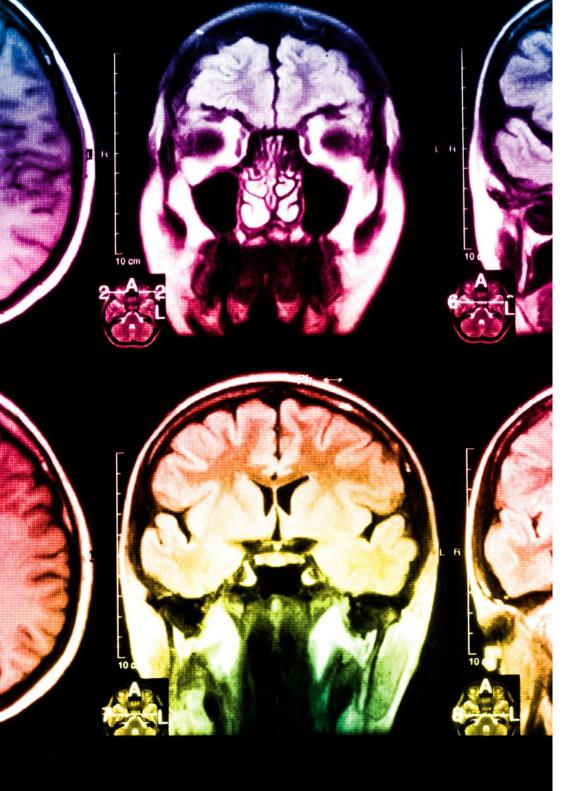
At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

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.



# tech 36 | Methodology

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.

20%

15%

3%

15%

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.

# Methodology | 37 tech



#### **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.

20%

7%

3%

17%



#### **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 Locoregional Anesthesia and Pain Therapeutics guarantees, in addition to the most rigorous and updated specialization, access to a Postgraduate Diploma issued by TECH Technological University.



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Successfully complete this specialisation and receive your university degree without travel or laborious paperwork"

# tech 40 | Certificate

This **Postgraduate Diploma in Locoregional Anesthesia and Pain Therapeutics** contains the most complete and up-to-date scientific program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Diploma** issued by **TECH Technological University** via tracked delivery\*.

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

Title: Postgraduate Diploma in Locoregional Anesthesia and Pain Therapeutics Official N° of hours: 400 h.



\*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.

technological university Postgraduate Diploma Locoregional Anesthesia and Pain Therapeutics » Modality: online » Duration: 6 months » Certificate: TECH Technological University » Dedication: 16h/week » Schedule: at your own pace » Exams: online

**Postgraduate Diploma** Locoregional Anesthesia and Pain Therapeutics

