



## Postgraduate Certificate

## Nervous System Infections

» Modality: online

» Duration: 6 weeks

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/medicine/postgraduate-certificate/nervous-system-infections

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## tech 06 | Introduction

Although Neurological Diagnosis is now made with greater certainty than in past decades, this accuracy has undoubtedly been helped by the advent of increasingly sophisticated Diagnostic Research Techniques. These advances involve new knowledge and scientific developments promoted by relentless research.

Non-specialized medical professionals need access to the necessary knowledge in this field, even if they are not specialists in this field of work, in order to be able to act efficiently. However, accessing the necessary knowledge in this field and keeping up to date in this field can become incompatible with professional and personal Life. On the other hand, professionals need to find ways of updating their knowledge that are compatible with their personal and professional lives.

This Postgraduate Certificate has been created to provide an efficient response to this need: it focuses on real healthcare conditions, is eminently practical and does not go beyond what is essential in complex topics with little clinical impact.

The field of Neurology is wide, complex, and extensive. The program will guide the student so that they can globally, in a balanced and staggered manner, consider all the methodology required for the basic mastery of the specialty at the corresponding level.

Focused on the real context in which non-specialist physicians work and their diagnostic and assistance needs, this Postgraduate Certificate in Nervous System Infections will develop the knowledge that is truly necessary in a first or second level practice, avoiding dispersion in the learning effort.

The Postgraduate Certificate aims to prepare students with rigor, teach them with precision and provide them with ways to improve their skills so that they are able to lead realistic assistance and teaching programs in the specific field of their professional competencies.

This **Postgraduate Certificate in Nervous System Infections** contains the most complete and up-to-date scientific program on the market. The most important features include:

- Development of a Large Number of Case Studies Presented by Experts
- · Graphic, schematic, and highly practical contents
- The latest developments and cutting-edge advances in this field
- Practical exercises where the self-evaluation process can be carried out to improve learning
- Innovative and highly efficient methodologies
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Content that is accessible from any fixed or portable device with an Internet connection



All the methodology necessary for the non-specialist medical professional in the field of neurology, in a specific and concrete Postgraduate Certificate in Infections of the Nervous System"



This Postgraduate Certificate is the best investment you can make in the selection of a refresher program for two reasons: in addition to updating your knowledge in Nervous System Infections, you will obtain a program degree from TECH Technological University"

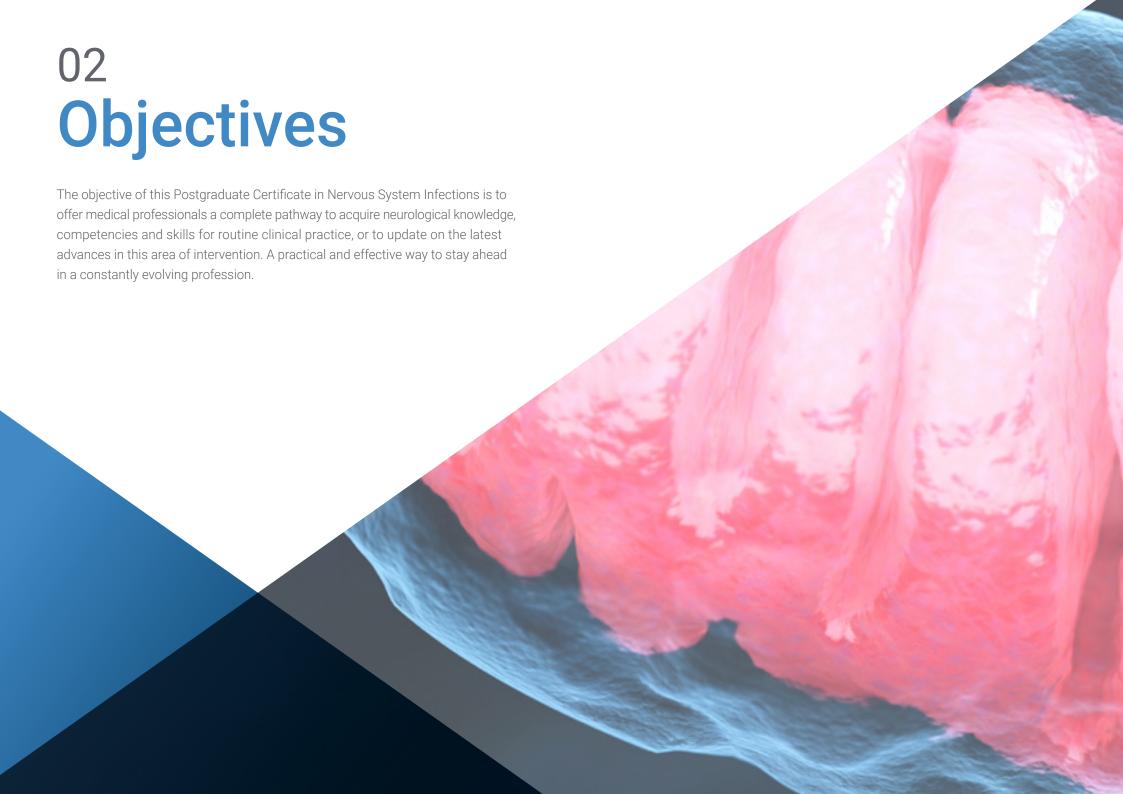
The development of this Postgraduate Certificate is focused on the practice of the proposed theoretical learning. Through the most effective teaching systems, proven methods imported from the most prestigious universities in the world, the student will be able to acquire new knowledge in an eminently practical way. In this way, TECH Technological University strives to convert the student's efforts into real and immediate competencies.

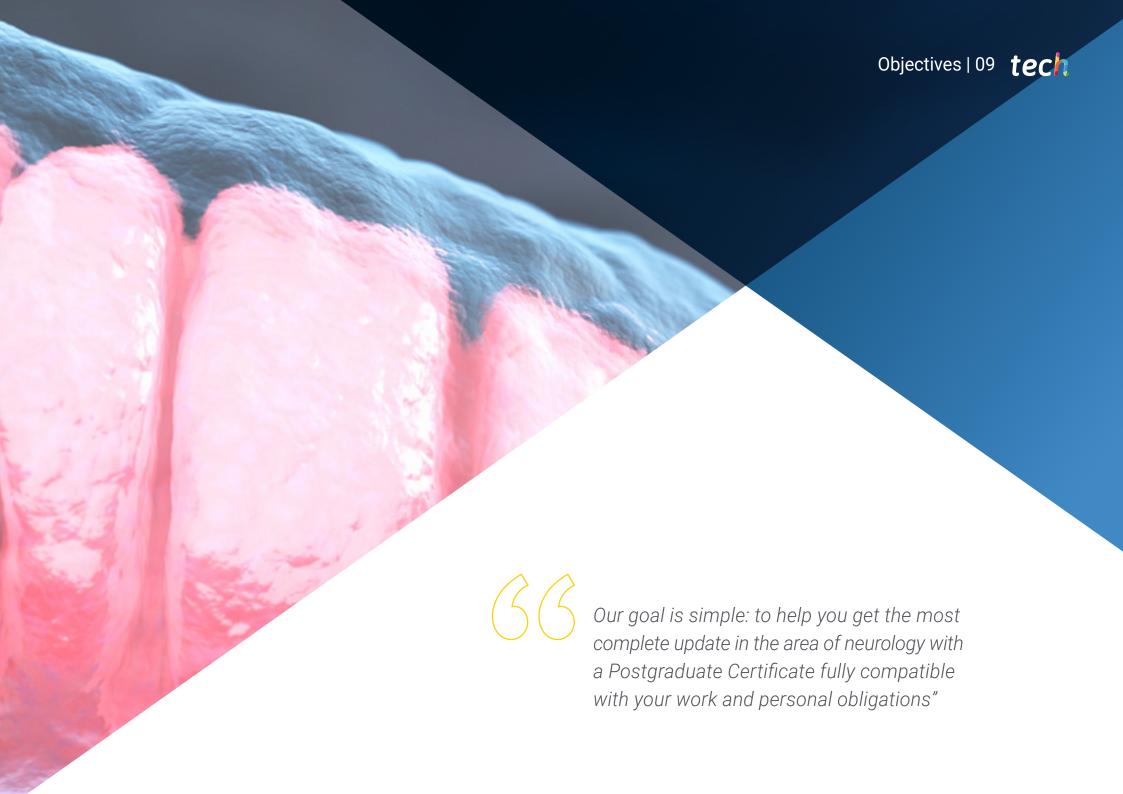
The online system is another of the strengths of this educational proposal. With an interactive platform that has the advantages of the latest technological developments, the most interactive digital tools are at the student's service. In this way TECH Technological University can offer the student a way of learning that is totally adaptable to their needs, so that they can perfectly combine this program with their personal or working life.

An educational program created to allow you to implement your acquired knowledge into your daily practice in an almost immediate way.

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







## tech 10 | Objectives

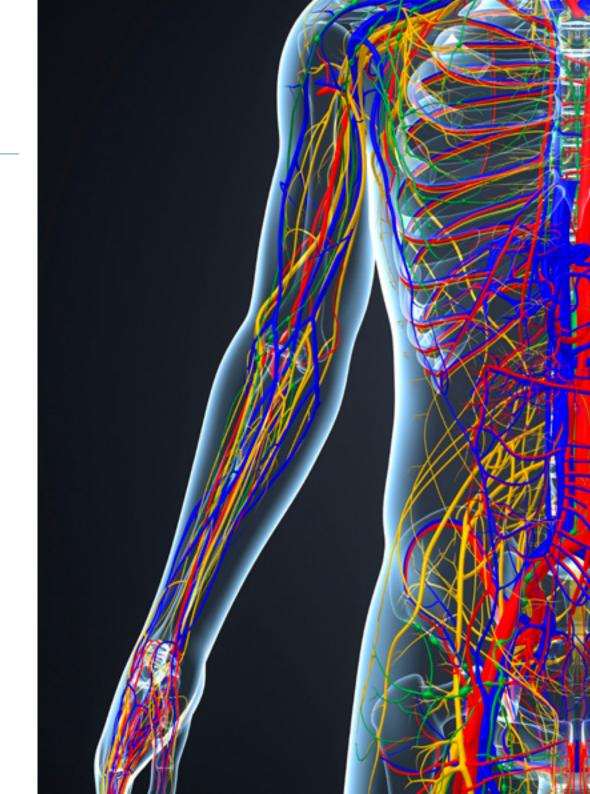


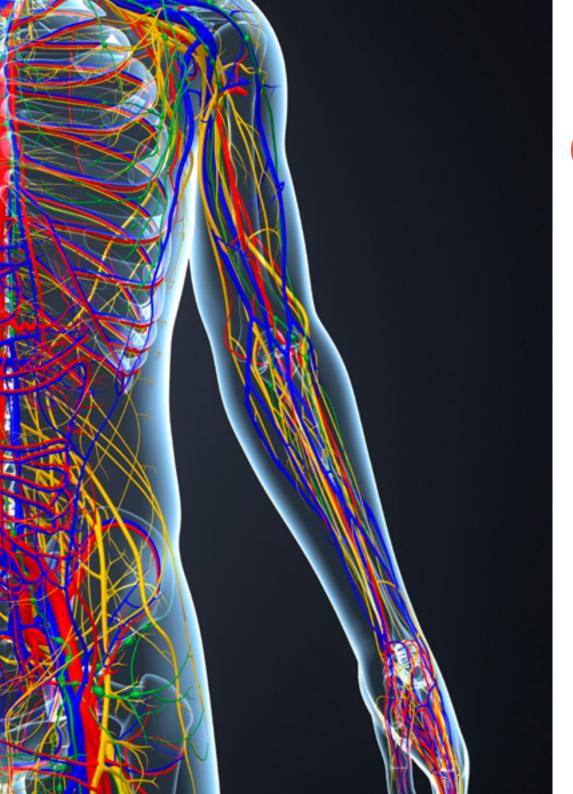
## **General Objectives**

- Acquire the Neurological Knowledge and Skills Necessary for Regular Clinical Practice in Specialized Consultation
- Learn about the latest updates and advances in clinical neurology



An Opportunity Created for Professionals who are looking for an Intensive and Effective Course, with Which to take a Significant Step in the Practice of their Profession"





## Objectives | 11 tech



## **Specific Objectives**

- Recognize the Most Important Infectious Processes of the CNS and to Place them in their Context in Order to Act Accordingly
- Review the Major Neurotoxic Agents to Prevent Nerve Injury with Appropriate Health Programs
- Review the Main Neurological Manifestations of Systemic Diseases
- Know the Psychiatric Processes Associated with Neurological Diseases
- Differentiate between Simulation and Conversion Syndrome





#### **International Guest Director**

Doctor David Simpson is a renowned physician specializing in Neurology at Mount Sinai Hospital in New York. Here, he has served as Director of the Department of Neurology as well as Director of the Division of Neuromuscular Diseases. He has also served as Director of the Clinical Neurophysiology Laboratories and as Director of the Neuro-AIDS Program. In this way, he has shown a particular interest in innovative therapies, such as the use of botulinum toxin and the capsaicin patch, with the aim of improving the quality of life of his patients.

He has also played a leading role in numerous clinical studies, leading research that has demonstrated the efficacy of the high-concentration capsaicin patch in the treatment of Peripheral Neuropathic Pain. He has also pioneered placebo-controlled studies that have confirmed the safety and effectiveness of botulinum toxin in treating Post-Stroke Spasticity. In addition, his research on botulinum toxin injection for the treatment of various neurological conditions has been instrumental in improving the techniques applied by practitioners.

Internationally, he has chaired panels of the American Academy of Neurology, developing guidelines for the use of botulinum toxin in the treatment of Movement Disorders, Pain and Autonomic Conditions. He has also been a member of other prestigious organizations, such as the American Pain Society and the American Academy of Neuromuscular and Electrodiagnostic Medicine, among others.

In addition to his clinical work, Dr. David Simpson has published more than 300 articles and has been a member of several editorial boards. His prolific academic output has included key studies in Peripheral Neuropathies and Spasticity, topics on which he has lectured worldwide, training other specialists in advanced techniques to improve neurological treatments.



## Dr. Simpson, David

- Director of the Department of Neurology at Mount Sinai Hospital, New York, United States
- Director of the Division of Neuromuscular Diseases at Mount Sinai Hospital.
- Director of the Clinical Neurophysiology Laboratories at Mount Sinai Hospital
- Director of the Neuro-AIDS Program at Mount Sinai Hospital
- Doctor of Medicine from the University of Buffalo
- Fellowship in Clinical Neurophysiology
- America's Top Doctors Award from Castle Connolly Medical



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

#### **Guest Director**



#### Dr. Pérez Martinez, David Andrés

- Head of the Neurology Department of the University Hospital. 12 de Octubre
- Head of the Neurology and Neurophysiology Service at Hospital La Luz
- Head of the Neurology Section at the University Hospital Infanta Cristina
- Attending Physician Neurology at the Red Cross Central Hospital
- Director of the Neurowikia.com portal
- Director of the Brain Foundation
- Associate Professor in Neurology at the Complutense University of Madrid
- University Specialist in Evidence-Based Medicine by the UNED (UNED)
- University Specialist in Probability and Statistics in Medicine by the UNED
- President of the Madrid Association of Neurology
- Member of the Alzheimer Foundation, Spain

#### Management



#### Dr. Martín Araguz, Antonio

- Doctor of Medicine and Neurological Surgery
- Principal investigator of the international clinical trials of the UCN
- Chief of Neurology Section, Central Hospital of the Defense of Madrid
- Head of the Neurology Service of the University Hospital of the Air
- Chief of the Neurology Unit of the Havana Medical Center
- Medical Lieutenant Colonel of the Superior Health Corps of the Ministry of Defense
- University Professor
- Coordinator of the History of Neurology Group of the Spanish Society of Neurology
- PhD in Medicine and Surgery Alcalá de Henares University
- Degree in Medicine and Surgery. Valladolid
- · Specialist via MIR in Neurology. Ramón y Cajal Hospita
- Specialist in Family and Community Medicine by the European Community
- Expert in Headache of the Neurological Sciences Unit of Madrid
- Rotations and further studies at Rush Presbyterian Hospital in Chicago and Eckerd College in St. Petersburg and Oslo
- Postgraduate Certificate in Aeronautical and Aerospace Medicine. CIMA, Center for Aerospace Medicine Instruction
- Member of more than 20 Scientific Societies, among which stand out: Spanish Society of Neurology, Madrid Association of Neurology, Spanish Association of Medical Writers and Artists

## tech 18 | Course Management

#### **Professors**

#### Dr. Raquel Almendral Doncel

- Neuropediatrician, Hospital Virgen de la Salud, Toledo
- Neuropediatrician. General Hospital of Tomelloso
- Specialist in Family and Community Medicine, General Hospital of Albacete
- Specialist in Pediatrics and its specific areas, University Hospital San Juan de Alicante
- Author of the book "El triángulo del aprendizaje", Saralejandría Publishers, Castellón
- Doctor in Medicine and Surgery at the Autonomous University of Madrid
- Degree in Medicine and Surgery from the Complutense University of Madrid
- International Master in Psychobiology and Cognitive Neuroscience, Autonomous University of Barcelona
- Master in Pediatric Neurology and Neurodevelopment, Cardenal Herrera University
- Expert in Advances in Developmental, Learning and Neuropsychiatric Disorders, Cardenal Herrera University
- Expert in Infectious Diseases of the Nervous System and Neurological Emergencies, Cardenal Herrera University
- Postgraduate Diploma in Advances in Prenatal, Neonatal Neurology and Metabolic Errors, Cardenal Herrera University
- Postgraduate Diploma in Advances in Motor and Paroxysmal Disorders in Pediatric Neurology, Cardenal Herrera University
- Postgraduate Diploma in Malformations, Chromosomal Alterations and Neurosurgical Pathology in Pediatric Neurology, Cardenal Herrera University
- Member of: Spanish Society of Child Neurology, Neuropediatrics Association of Madrid and Center





## Course Management | 19 tech

#### Dr. Luis Lobato Pérez

- Psychologist and Neurologist, expert in Epilepsy and Addictions
- Neurologist. La Luz Hospital, Madrid
- Specialist of the Psychological Attention Service (SAP), Academy of MIR Asturias
- Specialist in Neurology. Quirónsalud Campo of Gibraltar Hospital
- General Neurology Consultation, Emergency Duty COVID19, University Hospital 12 de Octubre, Madrid, Spain
- Neurology Area Specialist, Neurology and Clinical Neurophysiology Service, University Hospital La Paz
- Neurophysiology on-call with the Epilepsy Monitoring Unit. Emergency Department, Pandemic COVID19, Neuroimmunology Unit. Neurology Service, University Hospital La Paz
- Epilepsy Monitorization Unit, Comprehensive Epilepsy Center (A. Kanner)
- Jackson Memorial Hospital, Miami University Hospital
- Clinical teaching collaborator Autonomous University of Madrid
- Degree in Medicine, University of Cadiz
- Degree in Psychology, National Distance University
- Master's Degree in Epilepsy, University of Murcia
- Master's Degree in Neurology Update, Universidad CEU San Pablo
- Expert in Clinical Intervention in Addictions, Colegio Oficial de Psicólogos de Madrid (COP)
- Postgraduate Diploma in Headaches, Francisco de Vitoria University
- Neurology Update & Stroke Intensive Review Course. University of Miami
- Member of the Spanish Society of Neurology

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#### Dr. Maria Asunción De la Morena Vicente

- Specialist in Neurology
- Assistant Physician, Neurology Specialist, University Hospital Infanta Cristina, Madrid
- Resident Neurology Physician, San Carlos Clinical Hospital, Madrid
- · Neurology Area Specialist, San Carlos Clinical Hospital, Madrid
- Research Project Manager, Fundación Investigación, Hospital Clínico San Carlos, Madrid
- Medical Specialist in Neurology private professional activity. Center for Neurological Studies. Sanitas Hospitals, ICE Medical Center and Sanitas Hospital, La Moraleja
- Collaborator in Practical Teaching of the Department of Medicine of the Faculty of Medicine UCM
- Degree in Medicine and Surgery, Autonomous University of Madrid
- Doctorate courses in Neurosciences, Faculty of Medicine, Complutense University of Madrid
- Specialty Neurology via MIR at the University Clinical Hospital San Carlos, Madrid
- Specific Program in Epilepsy of the Foundation of the Spanish Society of Neurology, carried out at the Epilepsy Unit of the Hospital Clinic of Barcelona
- Member of: Spanish Neurology Society, Spanish Epilepsy Society, Madrid Neurology Association, Infanta Cristina Hospital Research Committee, Innovation Committee, Puerta de Hierro Hospital Research Institute

#### Dr. Manuel Domínguez Salgado

- Head of the Epilepsy Unit and Cognitive Impairment Unit, Central Hospital de la Defensa Gómez Ulla, Madrid
- Area Specialist in Neurology, Hospital Central de la Defensa Gómez Ulla, Madrid
- Head of Neurology, Hospital Vithas, Madrid, La Milagrosa
- Associate Professor of Neurology University of Alcalá de Henares
- Professor of Neurology University of Castilla-La Mancha
- Visiting Professor National School of Occupational Medicine, CEU San Pablo University
- Regular collaborator in several patient associations
- Author of several national and international books and book chapters
- Author of articles in national and international journals of impact
- Multiple presentations in several national and international congresses
- Doctor of Medicine from the Complutense University of Madrid in the Neurosciences program
- Specialist in Neurology and Clinical Neurophysiology
- Magister in Pediatric Neurology
- Member of: American Academy of Neurology European Academy of Neurology, Spanish Society of Neuropediatrics, Research Ethics Committee of the Central Defense Hospital

#### Dr. Antonio Fe Marqués

- Medical Internist Specialist in Infectious Diseases
- · Chief of Operational Military Health, Central Defense Hospital
- Medical Specialist in Internal Medicine and Infectious Diseases, Central Administration
- Head of Area, General Sub-Inspection of Health and Expert Support, IGESAN
- Head of High Level Isolation Unit, Central Defense Hospital Gómez Ulla
- Head of CBRN-Infectious Diseases Unit, Central Defense Hospital Gómez Ulla
- Specialist in Internal Medicine, Hospital Central de la Defensa Gómez Ulla
- · Doctor. Department of Medicine and Medical Specialties, University of Alcalá, Spain
- Corresponding Academic, Royal Academy of Medicine of the Balearic Islands
- Full Professor, Military School of Health
- University Professor
- Doctor of Medicine, Complutense University, Madrid
- Degree in Medicine, Autonomous University, Madrid
- Resident of the specialty Internal Medicine, Complutense University, Madrid

#### Dr. Daniel Toledo Alfocea

- Neurology specialist, general neurology consultation, general neurology floor, stroke unit and headache consultation. 12 de Octubre University Hospital, Madrid
- Neurology specialist, general Neurology ward and Cognitive Impairment consultation. San Carlos Clinical Hospital, Madrid
- Resident of Neurology San Carlos Clinical Hospital, Madrid Member of the organizing committee of the conference: "Culturas Sanitarias.
   Professionals and patients: anthropological perspectives". Miguel Hernández University of Elche
- Treasurer at the XXX National Congress of Medical Students organized by the Miguel Hernández University of Elche
- Degree in Medicine, Faculty of Medicine, Miguel Hernández University, Alicante, Spain
- Title of expert in Headaches by the Francisco de Vitoria University
- First multidisciplinary meeting on headaches of the CAM (HU Clínico San Carlos)
- Diagnostic Imaging Simulation Program in Dementia. TMC Academy
- Rotation in neurootology at the Royal National ENT Hospital and the National Hospital for Neurology and Neurosurgery in London

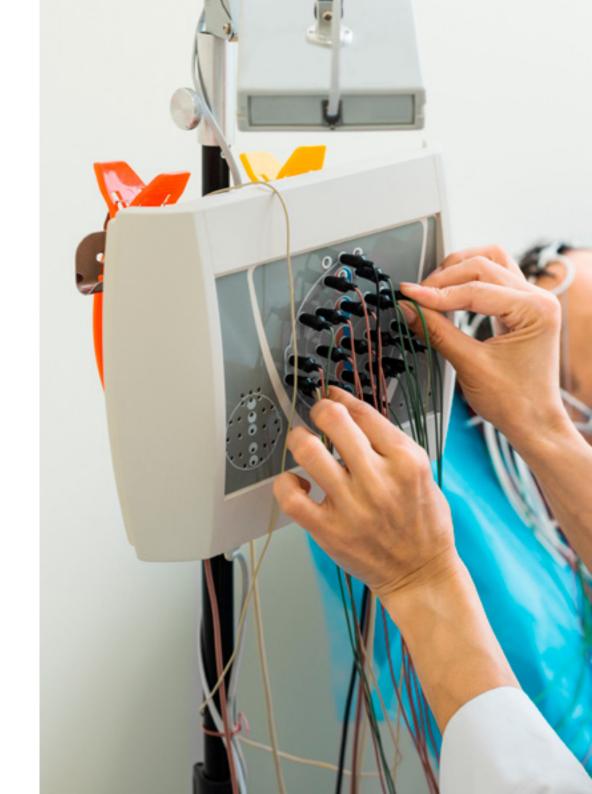
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#### Dr. Juan José Ruiz Ezquerro

- Chief of Neurology Service at the Zamora Health Care Complex
- Editor of 'Neurosciences and History', official publication of the Historical Archive Museum of the Spanish Society of Neurology
- Chief of Internal Medicine Service. Zamora Health Care Complex
- Master Professor in Epilepsy, University of Murcia
- Master Professor in Clinical Neuropsychology University of León-IAEU
- Author of several publications, books and chapters, mainly on Clinical Neurology and Neurohistory, as well as Art History, Traditional Culture, Archaeology and Ethnography
- SEN History of Neurology Award
- Degree in Medicine from the University of Zaragoza
- Neurology Specialist MIR, Clinical University Hospital of Salamanca, Spain

#### Dr. Marta Ruiz López

- Specialist in Neurology
- Research Fellow, Institute of Neurogenetics, Germany
- Fellow, Toronto Western Hospital
- External Rotation Mont Sinai Hospital, New York
- Neurologist, Son Llàtzer Hospital
- Resident Physician in Neurology, University Hospital Son Espases, Spain
- Degree in Medicine from the University of Salamanca
- Master in Movement Disorders. 4th Edition, University of Murcia-Neurocampus-Viguera Editores
- Certification in Ultrasonography by the Spanish Society of Neurology





#### Dr. Moreno, Irene

- Clinical neurologist. Jiménez Díaz Hospital Foundation Hospital. Puerta de Hierro University Hospital
- Research neurologist at the Puerta de Hierro Segovia de Arana Institute for Health Research
- Co-author of 3 books based on the study of Multiple Sclerosis
- PhD in Neurosciences "Cum Laude", Autonomous University of Madrid
- Medical Surgeon, National University of Colombia
- Specialist in Neurology via MIR by the University Hospital Puerta de Hierro Majadahonda
- Master Neuroimmunology, Autonomous University of Barcelona, CEMCAT

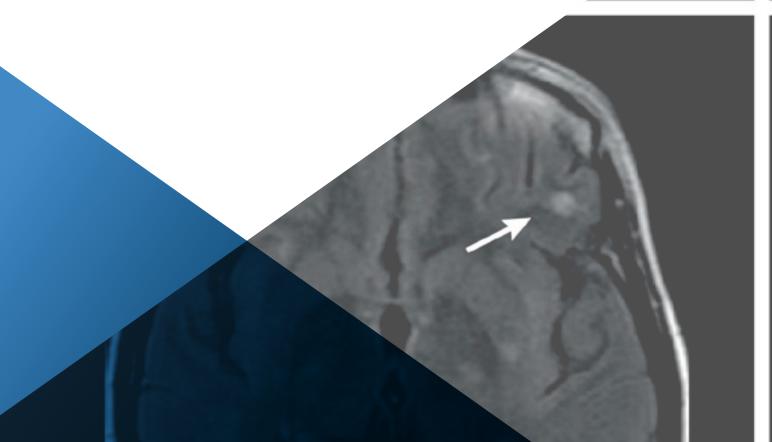
#### Dr. Ana Isabel Puente Muñóz

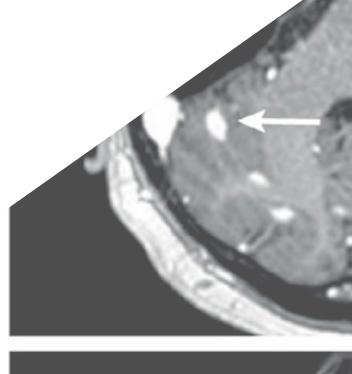
- Associate Chief of the Clinical Neurophysiology Service at Hospital La Luz
- Head of the Clinical Neurophysiology Unit at Hospital Central de la Cruz Roja
- Coordinator of the Sleep and Electroencephalography Unit at Hospital Quirónsalud Sur
- Coordinator of the Sleep Unit at Hospital Sanitas La Moraleja
- Resident Internist in Clinical Neurophysiology at San Carlos Clinical Hospital
- Author and co-author of scientific articles and books related to her specialty
- Speaker at numerous Clinical Neurophysiology Congresses

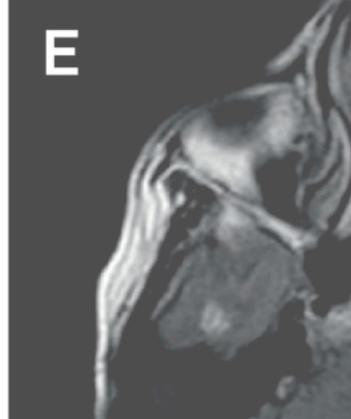
# 04

# **Structure and Content**

The structure of the contents has been designed by a team of professionals, aware of the current relevance of education in order to advance in the labor market with security and competitiveness, and to practice their profession with the excellence that only the best preparation allows.









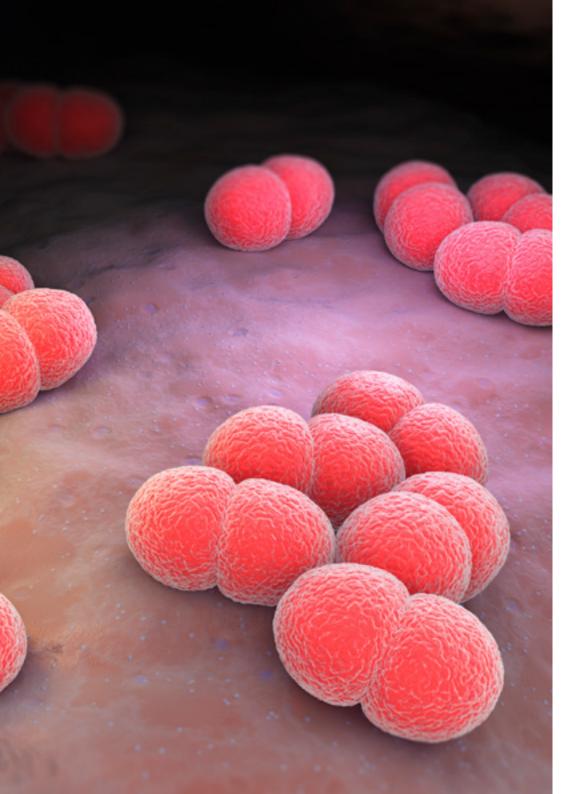
## tech 26 | Structure and Content

## **Module 1.** Nervous System Infections Neurological and Psychiatric Aspects of Systemic Diseases, Toxics, and External Agents

- 1.1. Infections the Nervous System
- 1.2. Effects of Radiation, Drugs, and Alcohol on the Nervous System
- 1.3. Action of Physical Agents, Neurotoxicants, and Nutritional Deficits on the Nervous System
- 1.4. Neurology of Endocrine Diseases
- 1.5. Vasculitis, Connective Tissue Diseases, and the Nervous System
- 1.6. Psychiatric Aspects of Neurological Diseases: Conversion, Behavioral, and Personality Disorders Depression and Psychosis in Neurological Practice
- 1.7. Other Neurological Disorders in Systemic Diseases
- 1.8. Inborn Errors of Metabolism of the Nervous System
- 1.9. Mitochondrial and Ion Channel Disorders of the Nervous System
- 1.10. Neurocovid









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





## tech 30 | 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.



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.
- 4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.





#### Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.

Professionals will learn through real cases and by resolving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.



## Methodology | 33 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.

This program offers the best educational material, prepared with professionals in mind:



#### **Study Material**

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



#### **Surgical Techniques and Procedures on Video**

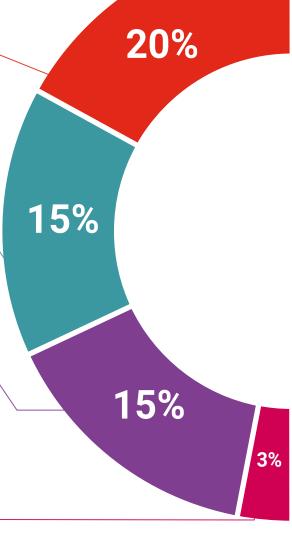
TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.



#### **Interactive Summaries**

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

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





#### **Additional Reading**

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.

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

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



#### **Testing & Retesting**

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



#### Classes

There is scientific evidence on the usefulness of learning by observing experts.

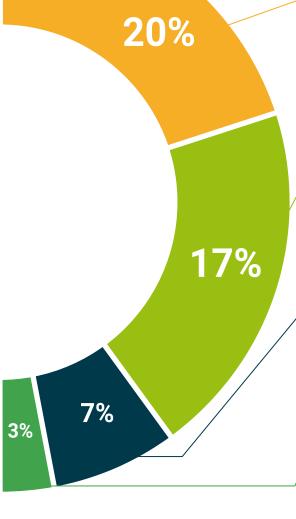
The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



#### **Quick Action Guides**

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.









## tech 38 | Certificate

This **Postgraduate Certificate in Nervous System Infections** contains the most complete and up-to-date program on the market.

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

The diploma issued by **TECH Technological University** will reflect 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 Nervous System Infections
Official N° of Hours: 150 h.



<sup>\*</sup>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.

health confidence people
health information tutors
education information teaching
guarantee accreditation teaching
institutions technology learning



## Postgraduate Certificate Nervous System Infections

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

