# Postgraduate Certificate
## Neuromuscular Diseases in Small Animals

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# Postgraduate Certificate
## Neuromuscular Diseases in Small Animals

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

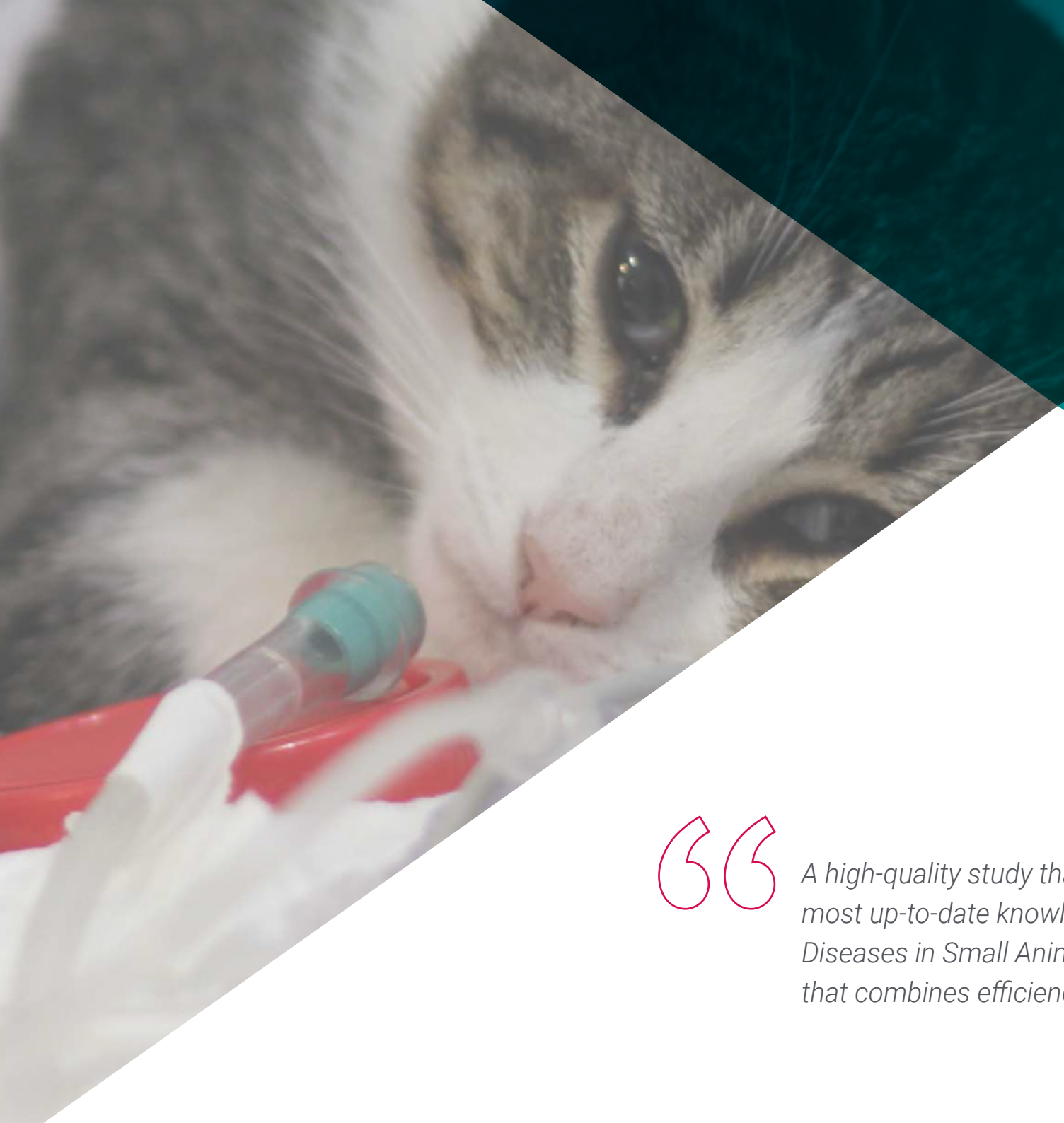
Website: **www.techtitute.com/pk/veterinary-medicine/postgraduate-certificate/neuromuscular-diseases-small-animals**

# Index

01

# Introduction

This interesting program deals with a group of pathologies that are very common in the day-to-day practice of neurology: neuromuscular diseases. Designed for intensive and efficient learning, it analyzes and classifies the basic principles of the different types of neuromuscular diseases and develops their differential characteristics. A high-impact study for the veterinary professional that will provide the student with the most up-to-date information in this field.



*A high-quality study that puts at your disposal the most up-to-date knowledge in Neuromuscular Diseases in Small Animals, in an intensive process that combines efficiency and flexibility"*

Most of these pathologies can be generalized or affect a single nerve, with a wide range of clinical signs associated with them. We emphasize the importance of the development of the pathogenesis of each of them for their correct understanding.

For this purpose, it is essential to develop the physiological mechanisms of nerve impulse transmission in all its phases.

This module examines mononeuropathies and polyneuropathies, as well as diseases of the neuromuscular junction, with special emphasis on the development of the pathogenesis, diagnosis and treatment of myastemia gravis.

It develops the different myopathies, their most characteristic clinical signs, as well as their diagnosis and treatment.

*Add to your skills the extensive knowledge of the different myopathies and implement new ways of working in this field"*

This **Postgraduate Certificate in Neuromuscular Diseases in Small Animals** offers the advantages of a high-level scientific, teaching, and technological course. These are some of its most notable features:

- The latest technology in online teaching software
- A highly visual teaching system, supported by graphic and schematic contents that are easy to assimilate and understand
- Practical cases presented by practising experts
- State-of-the-art interactive video systems.
- Teaching supported by telepractice
- Continuous updating and recycling systems
- Autonomous learning: full compatibility with other occupations
- Practical exercises for self-evaluation and learning verification
- Support groups and educational synergies: questions to the expert, debate and knowledge forums.
- Communication with the teacher and individual reflection work
- Content that is accessible from any fixed or portable device with an Internet connection.
- Supplementary documentation databases are permanently available, even after the program

*Learn directly from the experience of professionals with long experience in this area of intervention and get a real and contextual view of it"*

*The pace of work is set by you, organizing your effort and dedication with the certainty of not losing quality, in a studio created to be flexible.*

*With high-quality audiovisual systems that will allow you to observe the application of the different techniques and approaches.*

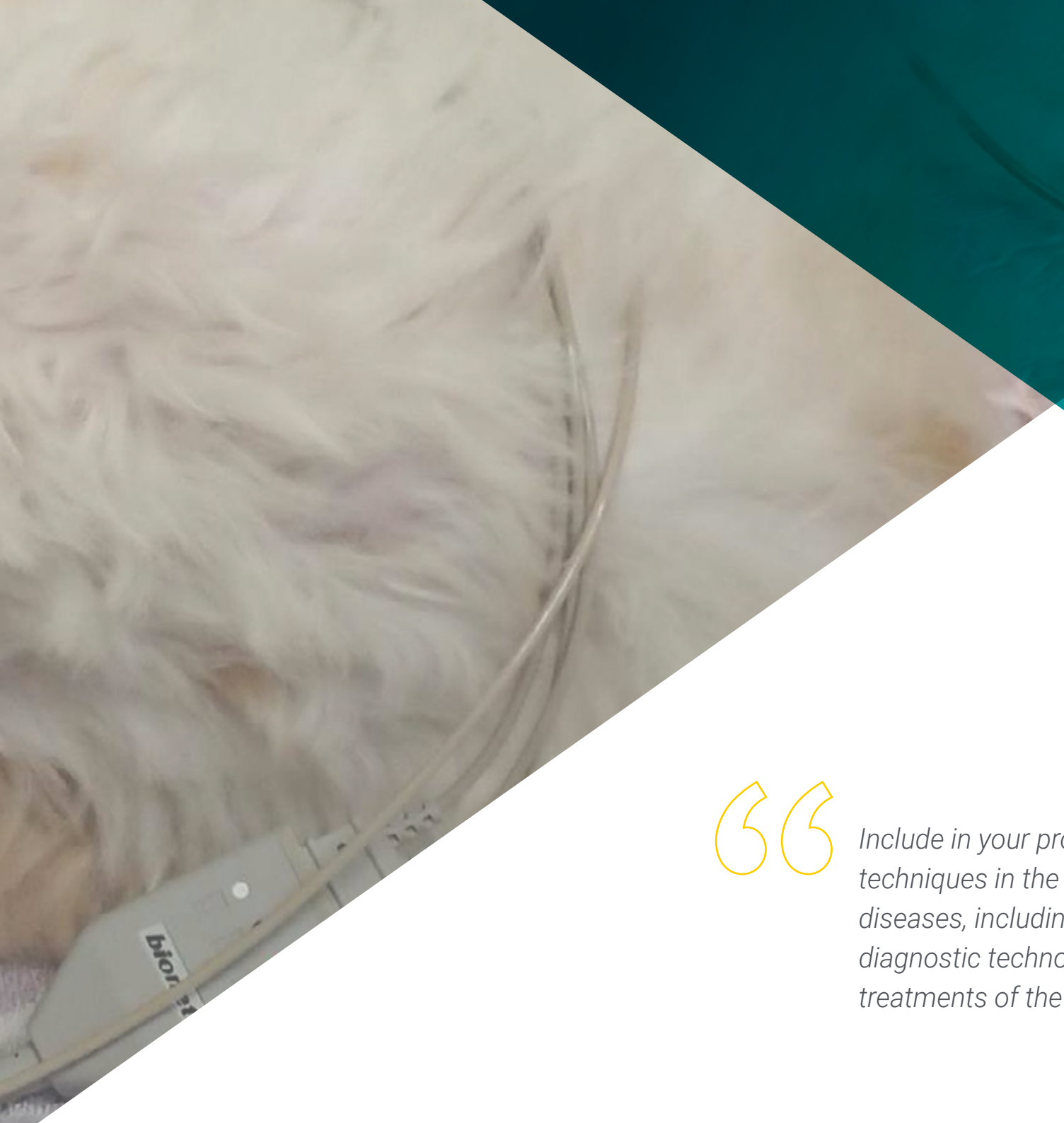
TECH's teaching staff is made up of professionals from different fields related to this specialty. In this way TECH ensures to offer the student the training update objective he/she is looking for. A multidisciplinary team of qualified and experienced professionals in different environments, who will develop the theoretical knowledge in an efficient manner, but, above all, will put at the service of the graduate the practical knowledge derived from their own experience: one of the differential qualities of this Postgraduate Certificate.

The design of this program is based on Problem-Based Learning: an approach that views learning as a highly practical process. To achieve this remotely, we will use telepractice learning: with the help of an innovative interactive video system, and *learning from an expert*, you will be the studies will be able acquire the knowledge as if you were actually dealing with the facing you are learning about. A concept that will allow you to integrate and fix learning in a more realistic and permanent way.

02

# Objectives

You will learn to recognize, diagnose and treat the different pathologies that concern Neuromuscular Diseases in Small Animals, acquiring the most up-to-date intervention capacity in this field. The objective is for students to generate specialized knowledge, creating a well-structured basis to identify the clinical signs associated with each neurological location and to be able to establish a list of differential diagnoses, acting correctly to achieve the best possible prognosis in patients.



*Include in your professional practice the latest techniques in the approach to neuromuscular diseases, including the use of the most current diagnostic technology and the most highly valued treatments of the moment"*

## General Objectives

- Define and classify the different neuromuscular diseases.
- Develop the different diagnostic tests and their interpretation.
- Develop the different treatments for neuromuscular diseases.
- Present the characteristic clinical signs for its correct neurolocalization.

*Give your patients a plus in quality by incorporating into their care the innovations that science and technology have brought to this field of work"*



## Specific Objectives

- Specify the basic principles and classification of neuromuscular diseases.
- Define the mechanisms of nerve impulse generation and transmission.
- Describe the types, diagnosis and treatment of the different neuropathies, polyneuropathies and myopathies.
- Examine the types of neuromuscular junction diseases.
- Analyze myastemia gravis as an important clinical entity in the neurology practice.
- Establish the different prognoses of neuromuscular diseases

03

# Course Management

The student will be taught by members of a teaching staff of the highest level, chosen for their proven experience. Professionals from different areas and fields of expertise that make up a complete, multidisciplinary team. A unique opportunity to learn from the best.

*With a quality commitment in all our areas, our teachers, specialists in this field, will be in charge of accompanying you in your study, supporting your learning in a direct way"*

## Director Invitado Internacional

Dr. Steven de Decker's interest in the field of Veterinary Neurology has led him to be one of the most important figures in this area worldwide. He has participated in several international congresses, including the Singapore Vet Show, the largest veterinary conference in the Asian continent.

Such is his relevance that he has become president of the British Society of Veterinary Neurology. He is also a senior lecturer and head of the Neurology and Neurosurgery service at the Royal Veterinary College, considered one of the best veterinary institutions in the world.

His main area of research is spinal disorders and neurosurgery, having delved into the diagnosis and treatment of cervical disc-associated spondylomyelopathy or Wobbler's syndrome in dogs. His most cited studies deal with the prevalence of thoracic vertebral malformations, meningoencephalomyelitis of unknown origin and spinal arachnoid diverticula in dogs.

## Dr. De Decker, Steven

- Head of Neurology and Neurosurgery Service, Royal Veterinary College - Hertfordshire, United Kingdom
- Head and Professor of the Neurology and Neurosurgery Service of the Royal Veterinary College - Hertfordshire, UK
- Past President of the British Veterinary Neurological Society.
- Doctor of Veterinary Neurology and Neurosurgery, University of Ghent, Belgium
- Graduate of the University of Ghent, Belgium

*Gracias a TECH podrás aprender con los mejores profesionales del mundo"*

## Management

**Dr. Moya García, Sergio**

- Doctoral candidate with the Chair of Surgery at the Faculty of Veterinary Medicine of Córdoba
- Miembro de Royal Collage Veterinary Surgeon (MRCVS)
- Member of the Endoscopy Group (GEA) of the Association of Veterinary Specialists in Small Animals (GEA-AVEPA) and of the Association of Veterinary Specialists in Minimally Invasive Medicine (AEVMI)
  and of the Neurology Group of AVEPA
- Vocal of Small Animals of the Official College of Veterinarians of Malaga since 2014
- Headof ATV training for AVEPA. Postgraduate in Neurology by the European School of Veterinary Studies Postgraduate (ESVP)
  Master's Degree in Clinical and Therapeutic Research from the University of Las Palmas de Gran Canaria
- Veterinary Specialist Degree in Endoscopy and Minimally Invasive Surgery by the University of Extremadura
- Assistance Director of the Vetersalud Dr. Moya Day Hospital and Head of the Neurology Department of the Bluecare Animal Hospital
- Currently pursuing neurology accreditation by AVEP



## Professors

**Dr. Ródenas González, Sergio**

- Graduated from the Veterinary University of Cáceres (Uex), he did an internship in the Surgery Department of the same faculty
- Doctorate in Neurology at the Veterinary Faculty of Maisons Alfor;
- Stays in American Universities and European reference centers in Neurology and Neurology services (University of Davis California, Pennsylvania, Guelph (OVC), Animal Health Trust, etc).
- ECVN Diplomate and European specialist in veterinary neurology
- 2 years in a referral center in England (SCVS) in the Neurology and Neurosurgery Department.
- One year clinical instructor in Neurology and Neurosurgery at the Faculty of Veterinary Medicine of the University of Montreal (Canada)
- In Canada, responsible for Neurology and Neurosurgery in two referral centers while continuing his work in England for two years
- Numerous national and international publications, as well as speaker at numerous international congresses on veterinary neurology and neurosurgery

*An impressive teaching staff, made up of European specialists from different areas of expertise, will be your teachers during your training: a unique opportunity not to be missed."*

04

# Structure and Content

Through a completely updated syllabus, the student will go through all the essential learning areas proposed, gradually acquiring the necessary skills to put into practice the necessary knowledge. A well-developed learning scheme that will allow you to learn in a continuous, efficient and customized way.

*A comprehensive teaching program, structured in well-developed units, oriented towards learning that is compatible with your personal and professional life"*

## **Module 1.** Neuromuscular Diseases

1.1. Classification and Diagnostic Methods in Neuromuscular Diseases
- 1.1.1. Classification
- 1.1.2. Diagnosis

1.2. Nerve Impulse Generation and Transmission
- 1.2.1. Physiological Mechanisms

1.3. The Neuronal Membrane
- 1.3.1. Composition and Structure

1.4. Mononeuropathies I
- 1.4.1. Congenital

1.5. Mononeuropathies II
- 1.5.1. Acquired

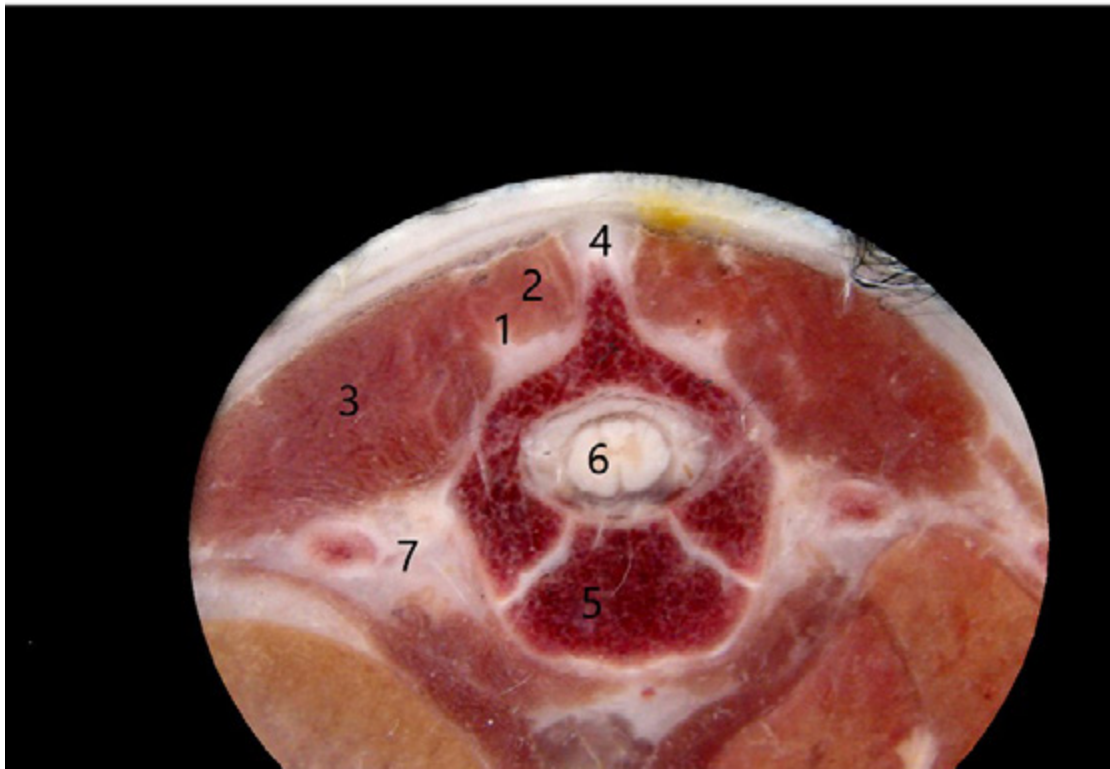
1.6. Acute Polyneuropathies
- 1.6.1. Types, Diagnosis and Treatment

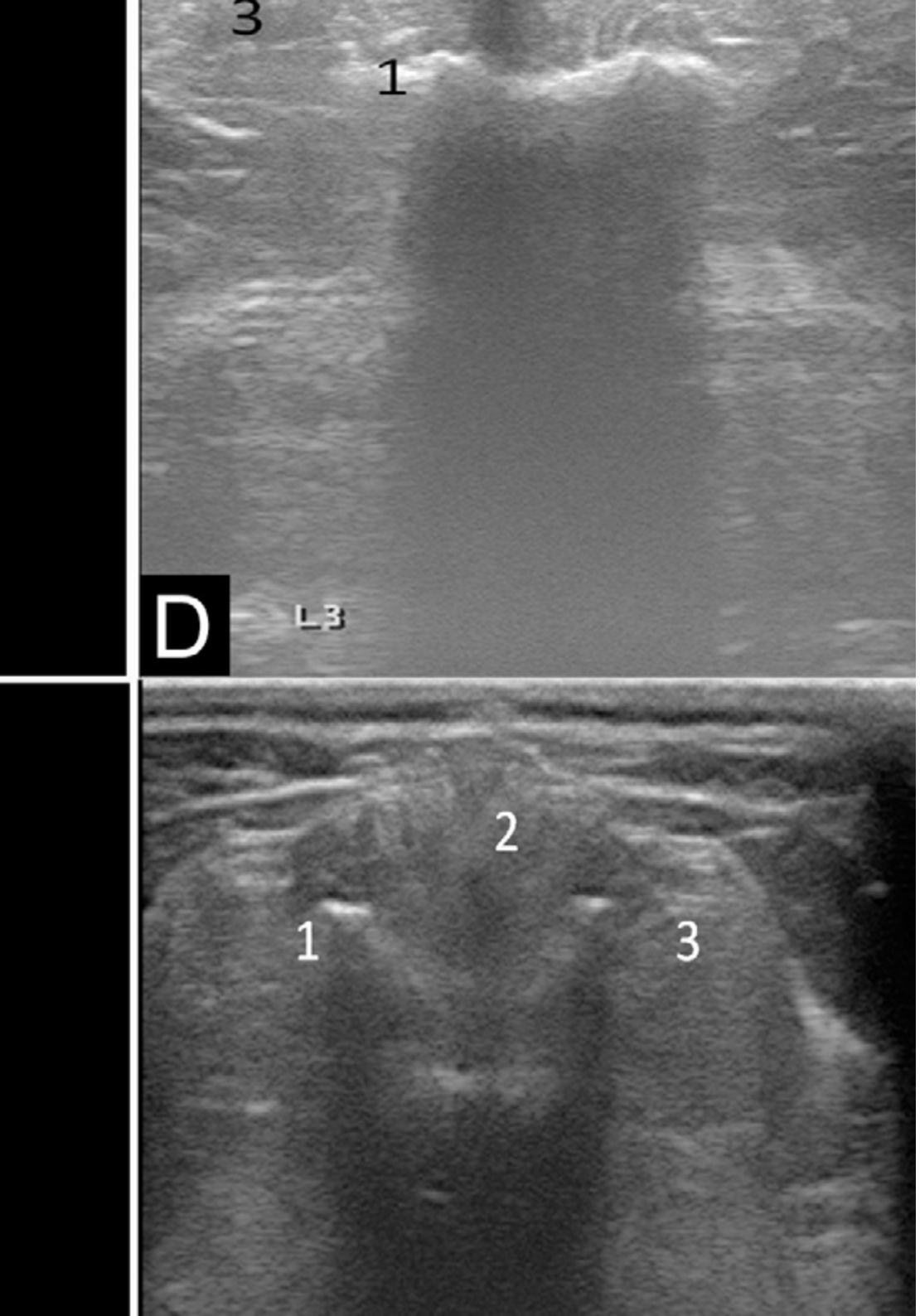
1.7. Chronic Polyneuropathies
- 1.7.1. Congenital
- 1.7.2. Degenerative

1.8. Acquired Polyneuropathies
- 1.8.1. Types, Diagnosis and Treatment

1.9. Myopathies
- 1.9.1. Types, Diagnosis and Treatment

1.10. Neuromuscular Junction Diseases
- 1.10.1. Myastemia Gravis




*Created to turn study into real skills, this syllabus will allow you to progress unstoppably to the highest level of learning"*

05

# Methodology

This academic program offers students a different way of learning. Our methodology follows a cyclical learning process: ***Relearning.***

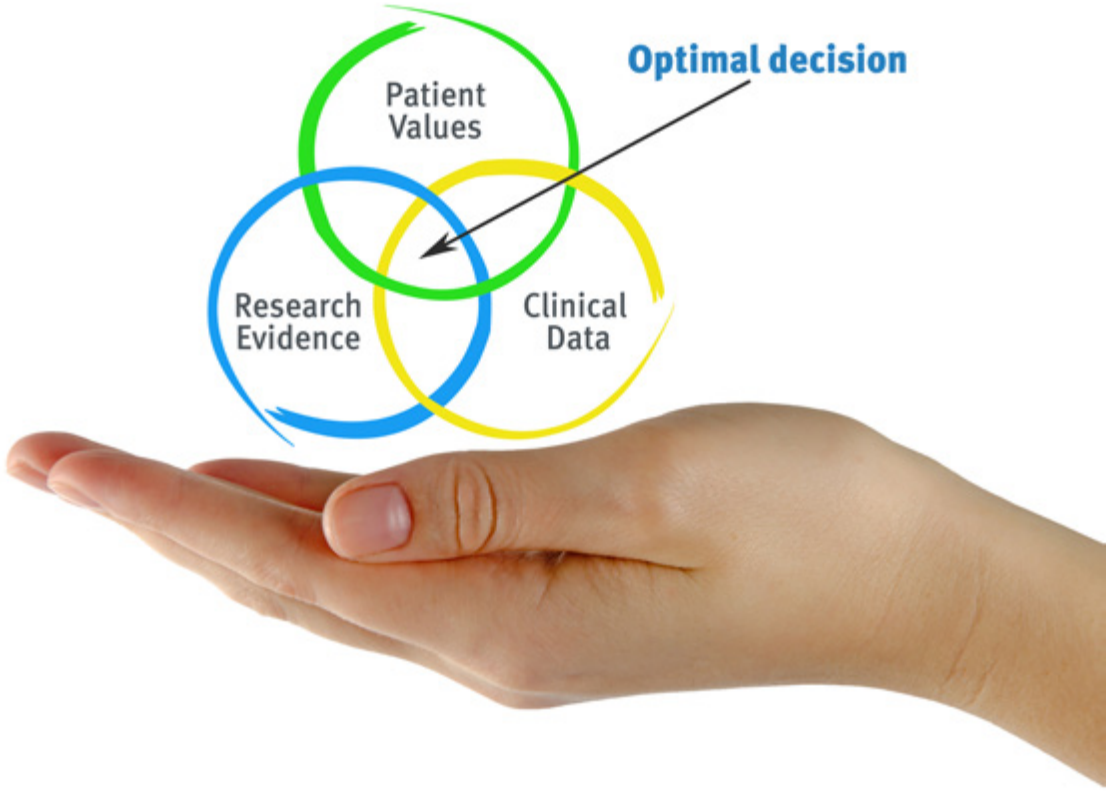
This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the ***New England Journal of Medicine*** have considered it to be one of the most effective.

*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"*

## At TECH, we use the Case Method

What should a professional do in a given situation? 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 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, in an attempt to recreate the actual conditions in a veterinarian'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:**

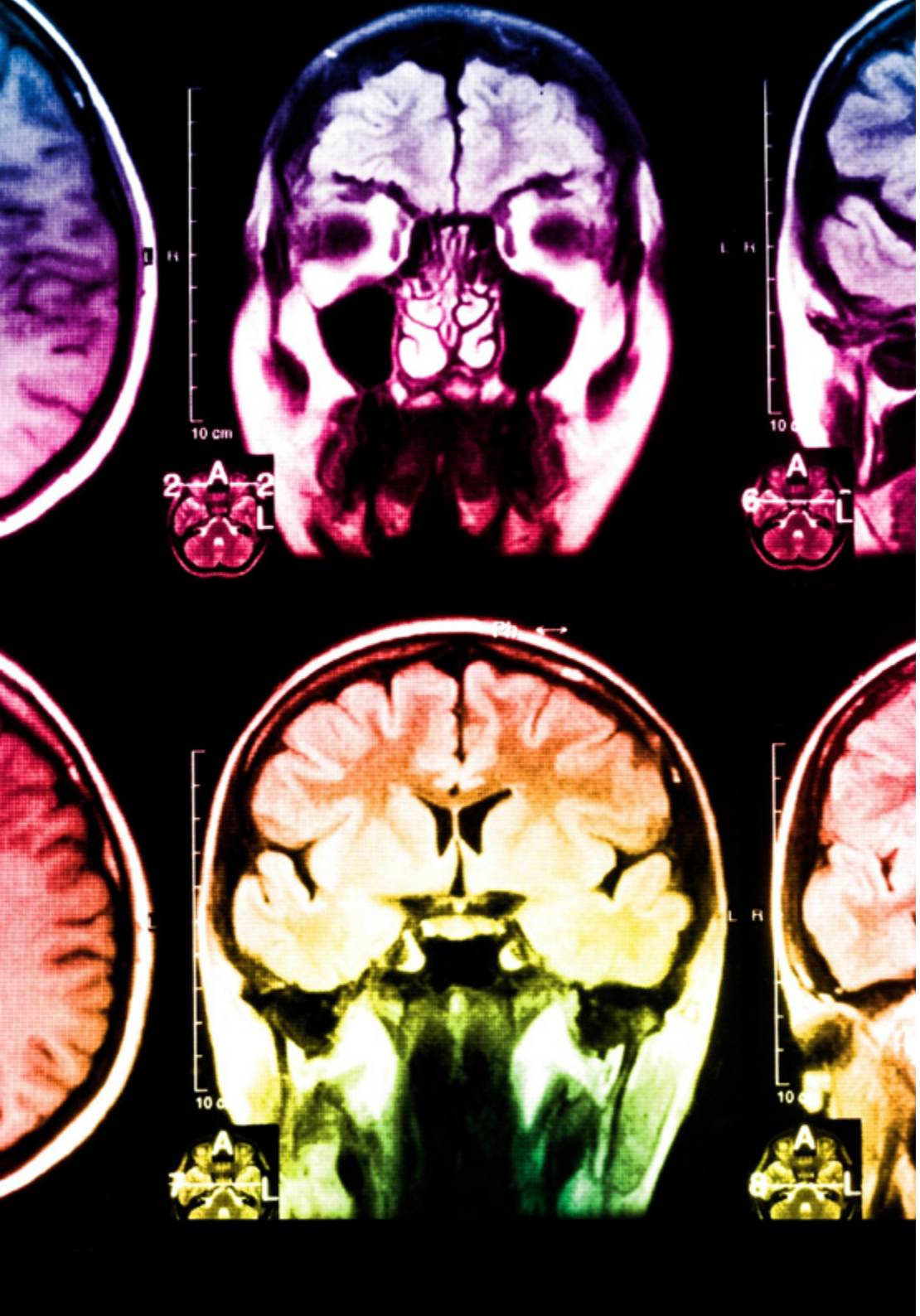
1. Veterinarians who follow this method not only manage to assimilate concepts, but also develop their mental capacity through exercises to evaluate real situations and knowledge application
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real 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 program.

## Relearning Methodology

At TECH, we enhance the Harvard 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.

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



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

With this methodology more than 65,000 veterinarians have been trained with unprecedented success in all clinical specialties, regardless of the surgical load. Our teaching method is developed in a highly demanding environment, where students have a high socio-economic profile and an average age of 43.5.

*Relearning will allow you to learn with less effort and better performance, involving you more in your training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for 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 adapted in 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.

### Latest Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current and procedures of veterinary 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.

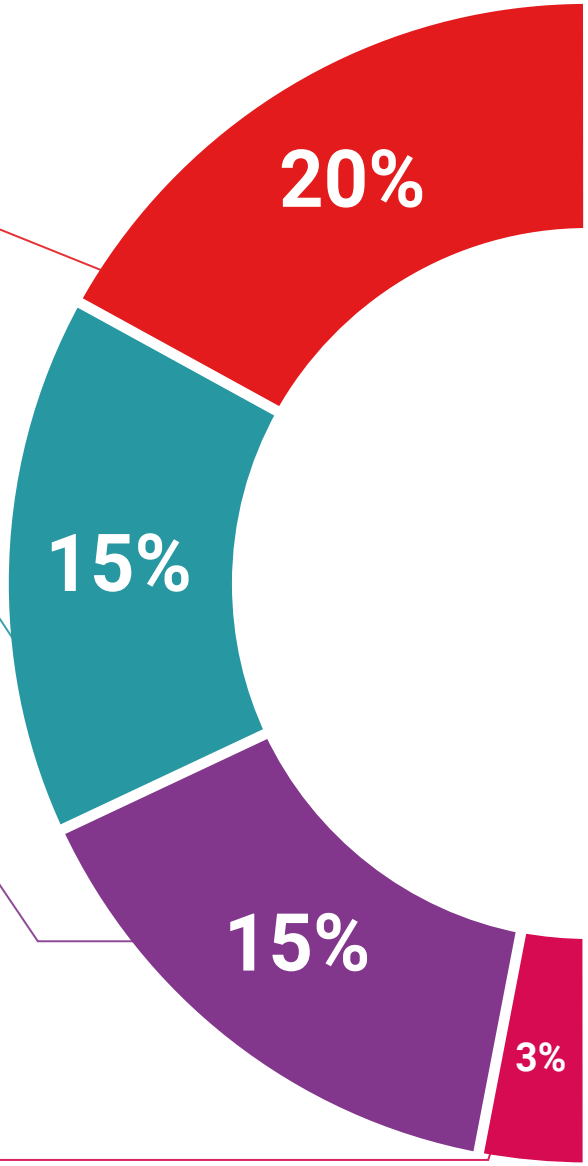
### Interactive Summaries

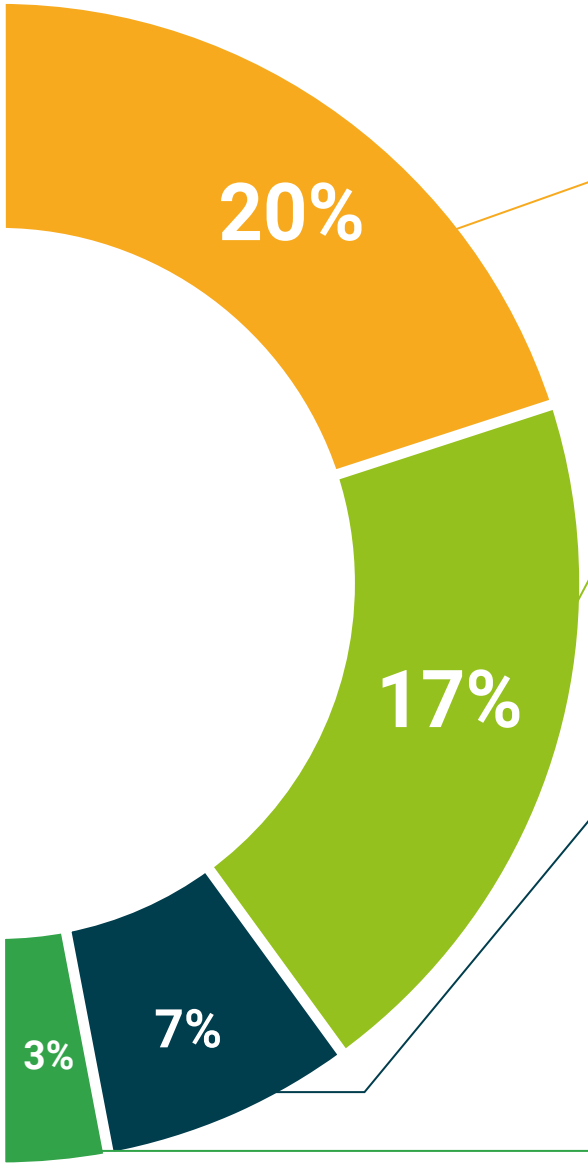
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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 suggesting that observing third-party experts can be useful.

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 Certificate in Neuromuscular Diseases in Small Animals guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.

*Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork"*

This **Postgraduate Certificate in Neuromuscular Diseases in Small Animals** 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 Certificate** issued by **TECH Technological University via tracked delivery.**

The certificate 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 Neuromuscular Diseases in Small Animals**

Official Nº of Hours: **150 hours.**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Awards the following

CERTIFICATE

to

Mr./Ms. _____, with identification number _____.

For having passed and accredited the following program

POSTGRADUATE CERTIFICATE

in

Neuromuscular Diseases in Small Animals

This is a qualification awarded by this University, equivalent to 150 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

June 17, 2020

Tere Guevara Navarro
Dean

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country. Unique TECH Code: AFWORD23S techtitute.com/certificates

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

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