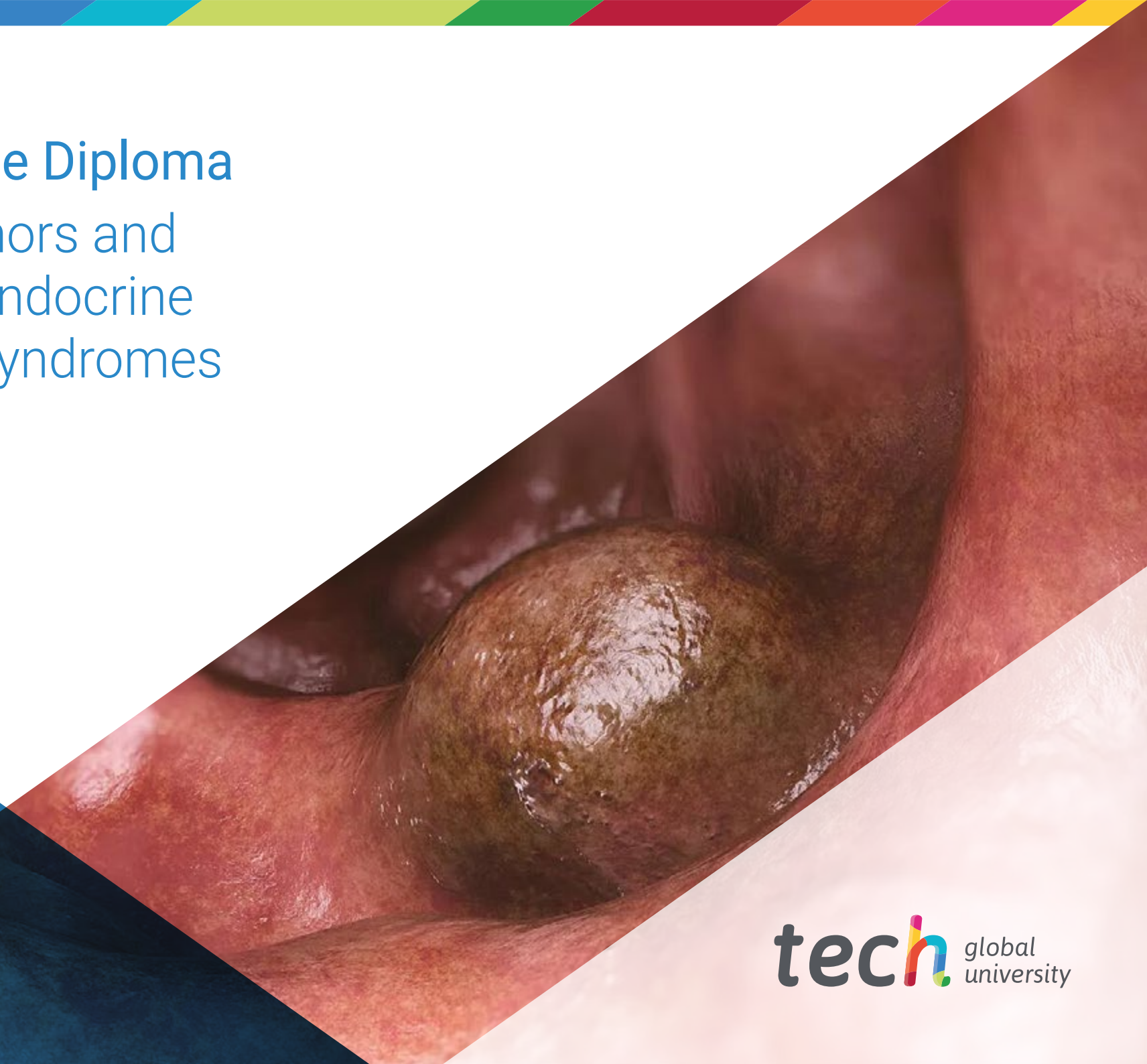


# Postgraduate Diploma

## Adrenal Tumors and Hereditary Endocrine Neoplasm Syndromes





## Postgraduate Diploma Adrenal Tumors and Hereditary Endocrine Neoplasm Syndromes

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-adrenal-tumors-hereditary-endocrine-neoplasm-syndromes](http://www.techtute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-adrenal-tumors-hereditary-endocrine-neoplasm-syndromes)

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# 01

# Introduction

In the field of Oncology, all types of cancers can be found, especially in the Endocrine field, where Adrenal Tumors and Neoplastic Syndromes are the order of the day. Since the departments of Oncology and Endocrinology are intrinsically related in this respect, Healthcare Professionals can become a reference in this area by obtaining the appropriate specialization. TECH offers this complete program on this Type of Tumors so physicians can obtain the specialty that will take them to a new level both academically and professionally, learning to Diagnose and Treat Pheochromocytomas and Paragangliomas with total efficacy.





“

*Oncology needs professionals with your qualifications and attitude, with the desire to continue improving both professionally and personally”*

An effective way to specialize and grow in the professional field of medicine is in the area of Oncology, for which professionals with a complete set of knowledge and skills in all kinds of Tumors and Oncological Conditions are required.

Within this specialty, Endocrine Oncology stands out, where professionals study Tumors related to the Endocrine System and its affections in patients. Specifically dealing with Adrenal Tumors and Hereditary Endocrine Neoplasm Syndromes, professionals must know the Hereditary Origin of most of these Genetic Mutations.

Thanks to this specific specialization, medical professionals will have many more opportunities to grow professionally, supported by a unique oncological knowledge that will make them prevail over the rest of their colleagues.

This program is also offered in a completely online format, which benefits the student flexibility and adaptation by giving them the freedom to download the entire syllabus and choose when and where to study it.

This **Postgraduate Diploma in Adrenal Tumors and Hereditary Endocrine Neoplasm Syndromes** contains the most complete and up-to-date scientific program on the market. Its most notable features are:

- Case studies presented by experts in Endocrine Oncologic
- 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
- Practical exercises where self-assessment can be used to improve learning
- Its special emphasis on innovative 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

“*By improving your health and transversal competences through this Postgraduate Diploma, you will be opting for a much better professional future”*

“

*You will not regret joining this Postgraduate Diploma, as it will be the key to open the door to the most professional Endocrine Oncology”*

The program's teaching staff includes professionals from the sector who contribute their work experience to this training program, as well as renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional 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 professional must try to solve the different professional practice situations that arise during the academic year. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

*Do you have the desire to continue growing in the Healthcare field, but don't know where? Choose TECH and join a team of winners.*

*You will fulfill your highest ambitions thanks to the specialization that this Postgraduate Diploma will give you.*



# 02 Objectives

The program objective is to bring students to the highest possible excellence in the field of Endocrine Oncology, with a specialization aimed at improving their analytical skills in the approach to Adrenal Tumors and Hereditary Endocrine Neoplasm Syndromes. Thanks to this effort, graduates will be amply rewarded for the investment made when taking on this Postgraduate Diploma.







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*TECH knows what you need on a personal and professional level to succeed. Don't worry, you are in the hands of the best”*



## General Objectives

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- Deepen the knowledge, diagnosis and treatment of Endocrine Oncologic Pathology
- Achieve an update in the most novel aspects in the Diagnosis and Treatment of Endocrine Oncologic Pathology
- Advance in the Multidisciplinary Approach essential for the Management of Endocrine Oncologic Pathology



*Direct your healthcare career toward specialization in Adrenal Tumors and Hereditary Endocrine Neoplasm Syndromes and distinguish yourself with honors from your professional peers”*





## Specific Objectives

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### Module 1. Adrenal Cortex Tumors

- ♦ Advance your understanding of incidentally discovered adrenal nodule
- ♦ Delve deeper into the diagnosis of ACTH Independent Hypercortisolism
- ♦ Delve deeper into the Differential Diagnosis of Primary Hyperaldosteronism due to Adenoma caused by Hyperplasia
- ♦ Delve deeper into the diagnosis, treatment and monitoring of adrenal carcinoma Multidisciplinary Approach

### Module 2. Pheochromocytomas and Paragangliomas

- ♦ Advance in the Molecular Bases of these Tumors and the importance of Genetic Studies
- ♦ Delve deeper into the diagnosis, treatment and monitoring of Pheochromocytomas and Paragangliomas

### Module 3. Multiple Endocrine Neoplasia Syndromes

- ♦ Advance in the knowledge of the Hereditary Syndromes of Multiple Endocrine Neoplasia
- ♦ Gain deeper understanding of how to monitor Gene Mutation Carriers for the different Syndromes
- ♦ Evaluate and monitor family members and relatives

# 03

# Course Management

The best professors in the healthcare field are at TECH, as we allow them to develop their full academic potential by relying on the most innovative educational methodologies on the market. Thanks to the professors' commitment to improving students' healthcare careers, professional success will follow much sooner than expected for graduates, who have access to personalized guidance so they can resolve any kind of obstacle related to the syllabus or their own career.





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*By choosing TECH you are choosing the best quality healthcare education, present in 23 Spanish-speaking countries with the largest teaching staff”*

## International Guest Director

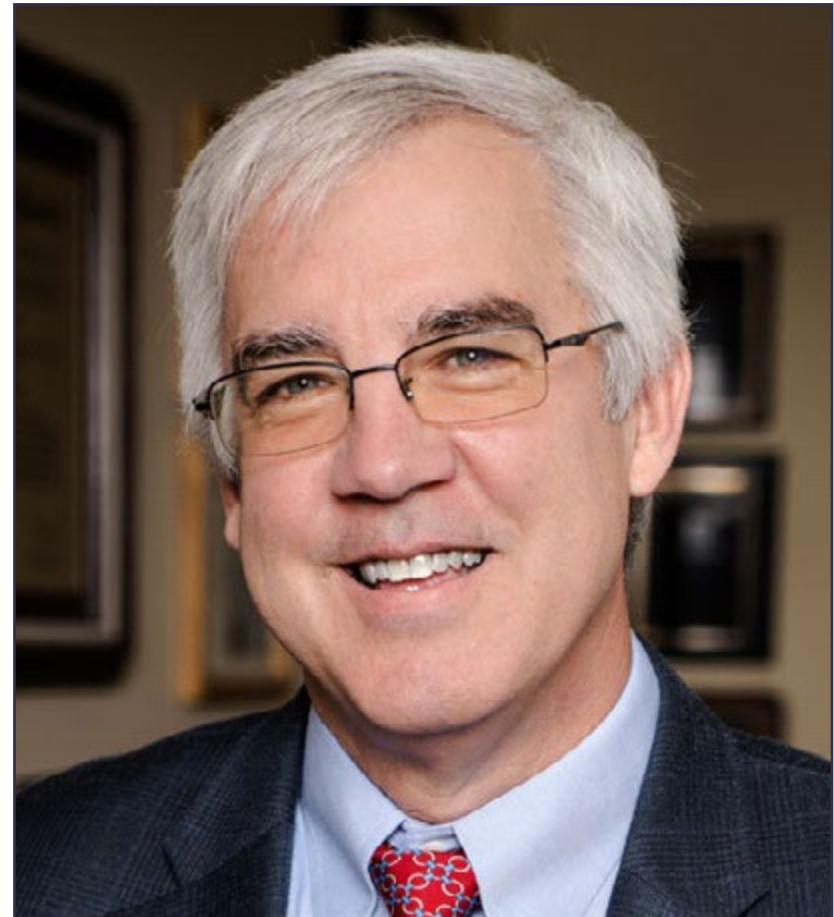
Dr. R. Michael Tuttle has developed, for more than 3 decades, a successful career in the medical field of Endocrinology. Thanks to his exceptional skills, this expert has received numerous international awards. He has received the Lewis Braverman Lectureship Award from the American Thyroid Association and the Knoll Pharmaceutical Mentor Award from the Endocrine Society.

He has also recently served as Clinical Director of the Endocrine Service at Memorial Sloan Kettering Hospital. He is also a permanent academic collaborator at Cornell University Medical School in New York.

In addition, Dr. Tuttle has distinguished himself on the clinical-research level. Specifically, he has delved deeply into the study of Thyroid Cancer and his work in this field has changed the paradigm regarding differentiated treatments (DTC) for this disease. Prior to his therapeutic innovations, all patients were treated with Total Thyroidectomy and Radioactive Iodine (RAI). However, this expert was one of the pioneers in using serum Thyroglobulin (Tg) as an indicator of residual DTC.

As such, he has led international studies that demonstrated the efficacy of recombinant thyrotropin (rhTSH) in determining TSH-stimulated Tg. This also led to the stratification of patients into risk categories and reduced the number of ionizing radiations. Together with his molecular analyses, his clinical work has opened a new scenario for multikinase inhibitor (TKI) therapies for radioiodine therapy-resistant DTC.

On the other hand, he has been a consultant to the Center for Disease Control for Radiation Exposure of Peoples in the Marshall Islands, the Hanford Downwinder Project, and a consultant to the National Academy of Sciences for Radiation Exposed Populations.



## Dr. Tuttle, R. Michael

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- Clinical Director of the Endocrinology Service at Memorial Sloan Kettering Cancer Center
- Specialist in Thyroid Cancer and Radioiodine Therapy.
- Academic Advisor, Cornell University Medical School, New York
- Fellowship at the Madigan Army Medical Center
- Residency in Medical Endocrinology at Dwight David Eisenhower Army Medical Center
- M.D. from the University of Louisville
- B.S. in Biology, Northern Kentucky University
- Member of:
  - Endocrine Society
  - American Thyroid Association
  - American Association of Endocrine Surgeons
  - American Association of Clinical Endocrinologists



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

## Management



### **Dr. Álvarez Escola, María Cristina**

- Head of the Endocrinology and Nutrition Service at La Paz University Hospital
- Resident Tutor in the Endocrinology and Nutrition Service at the La Paz University Hospital
- Coordinator for the Endocrine Tumors Committee at La Paz University Hospital
- Coordinator for the Pituitary Tumors Committee and the Selar Area at La Paz University Hospital
- Coordinator for the SENDIMAD Neuroendocrinology Group
- Member of the National Commission of Endocrinology and Nutrition, Ministry of Health, Spain
- PhD in Medicine and Surgery from the University of Alcalá de Henares



**Co-Direction****Dr. Fernández Martínez, Alberto**

- Attending Physician Specialist in General Endocrinology at Móstoles University Hospital
- Attending physician specializing in Endocrinology and Nutrition at La Paz University Hospital
- Degree in Medicine from the University of Barcelona
- Postgraduate Specialization in Neuroendocrinology at the Oxford Centre for Diabetes, Endocrinology and Metabolism
- Endocrinology Team Assistant responsible for educational activities for diabetic patients at the Gran Canaria Diabetic Association
- Collaborating monitor for health education activities for diabetic patients

**Dr. Blanco Carrera, Concepción**

- Endocrinology and Nutrition Resident Tutor at Príncipe de Asturias Hospital
- Specialist Physician in Endocrinology and Nutrition, Area III Specialized Care
- Medical Specialist in the Endocrinology Service at Albacete General Hospital
- PhD in Medicine and Surgery from the Autonomous University of Madrid
- Specialist in Endocrinology and Nutrition, MIR training at Puerta de Hierro Hospital
- Master's Degree in Health Care Unit Clinical Management from Universidad Internacional Menéndez Pelayo

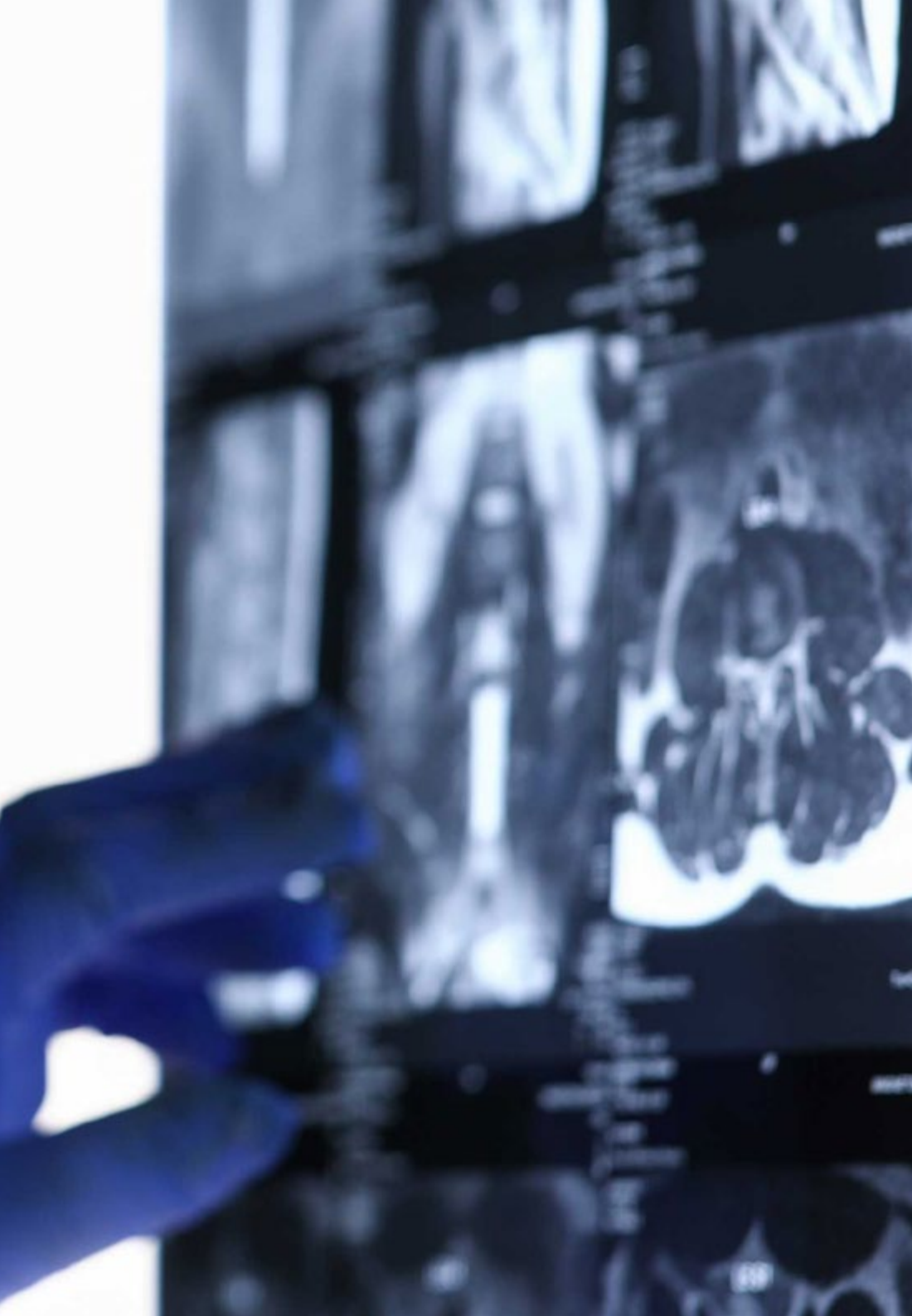
## Professors

### Dr. Hanzu, Felicia Alexandra

- ♦ Senior Specialist in Endocrinology at Barcelona Clinical Hospital
- ♦ Associate Professor of Medicine at Barcelona University
- ♦ Graduated in Medicine at the University of Medicine and Pharmacy Carol Davila, Bucharest
- ♦ Specialist in Endocrinology at the National Institute for Endocrinology CI Parhon, Bucharest
- ♦ PhD European International Degree from the Faculty of Medicine, University of Barcelona

### Dr. Araujo Castro, Marta

- ♦ Medical Specialist in Endocrinology and Nutrition at Ramón y Cajal University Hospital
- ♦ Degree in Medicine and Surgery from the University of Santiago de Compostela
- ♦ Master's Degree in Health Care Unit Clinical Management from Universidad Internacional Menéndez Pelayo
- ♦ Master's Degree in Research Methodology in Health Sciences, Applied Statistics Laboratory, Autonomous University of Barcelona
- ♦ Diploma in Diabetes Mellitus Type 2 Treatment Future Expert Diplomas in Diabetes, Autonomous University of Barcelona



**Dr. Lamas Oliveira, Cristina**

- ♦ Medical Specialist in the Endocrinology and Nutrition Service at Albacete University Hospital Complex
- ♦ Coordinator of the Neuroendocrinology Area, Spanish Society of Endocrinology Nutrition (SEEN)
- ♦ Secretary of the Castilian-Manchegan Society of Endocrinology, Nutrition and Diabetes
- ♦ Degree in Medicine and Surgery from the Autonomous University of Madrid
- ♦ Specialist in Endocrinology and Nutrition, Puerta de Hierro Hospital
- ♦ PhD in Medicine and Surgery with extraordinary doctoral award for the thesis "Cushing's Disease: Results of surgical treatment and analysis of prognostic factors of cure and recurrence in long-term monitoring"

# 04

## Structure and Content

The structure and contents of this Postgraduate Diploma have been created following TECH's meticulous educational methodology, which is based on *Relearning* to provide students with the most important concepts regarding Adrenal Tumors and Hereditary Endocrine Neoplasm Syndromes. Thanks to a reduced teaching load, supported by high quality audiovisual material, students have all the possible facilities to obtain their qualification quickly and efficiently.





“

*You have access to the most complete material you can find in Endocrine Oncology, focused on Adrenal Tumors and Hereditary Endocrine Neoplasm Syndromes”*

## Module 1. Adrenal Cortex Tumors

- 1.1. Adrenal Incidentaloma: Diagnostic Approach
- 1.2. ACTH Independent Cushing's Syndrome Caused by Adrenal Adenoma
- 1.3. Primary Hyperaldosteronism: Cohn's Disease
- 1.4. Adrenocortical Carcinoma (ACC)
  - 1.4.1. Introduction
  - 1.4.2. Medical History and Exploration
- 1.5. ACC: Genetic Aspects Laboratory Data Hormone Secretion
- 1.6. ACC: Imaging Tests Ultrasound CT, MRI, PET-CT
- 1.7. ACC: Pathological Anatomy Staging Prognostic Factors
- 1.8. Surgical Management
  - 1.8.1. Surgical Treatment for Primary Tumors
  - 1.8.2. Surgery and Other Local Treatments for Advanced Disease
- 1.9. Adjuvant: Radiotherapy: Relapse Treatment
- 1.10. Treating Advanced Stages of the Disease

## Module 2. Pheochrom Cytomas and Paragangliomas

- 2.1. Introduction
  - 2.1.1. Anatomy Recap
  - 2.1.2. Epidemiology
- 2.2. Molecular Basis: Genotype-Phenotype Correlation
- 2.3. Clinical Manifestations: Ways It Presents Itself
- 2.4. Laboratory Data
- 2.5. Imaging Tests
- 2.6. Surgical Treatment
  - 2.6.1. Adrenergic Block
  - 2.6.2. Surgery for Pheochromocytomas and Paragangliomas: Embolization
- 2.7. Radionuclide Therapy: Radiotherapy
- 2.8. Treating Advanced Stages of the Disease
- 2.9. Prognosis and Monitoring
  - 2.9.1. Different Mutation Carrier Monitoring
  - 2.9.2. Long-Term Monitoring
  - 2.9.3. Prognosis





- 2.10. Importance of Tumor Committees and Patient Associations
  - 2.10.1. Multidisciplinary Approach
  - 2.10.2. Role of Patient Associations

### Module 3. Multiple Endocrine Neoplasia Syndromes

- 3.1. Multiple Endocrine Neoplasia Type I (MEN I): Genetics
  - 3.1.1. MEN I Genetics
  - 3.1.2. When to Perform a Genetic Study to Rule Out Menin Gene Mutation
  - 3.1.3. Genetic Counseling for MEN I. Preimplantational Diagnosis
- 3.2. Clinical Manifestations of the Syndrome: Ways MEN I Presents Itself
- 3.3. Laboratory Tests at Initial Evaluation and Subsequent Monitoring
- 3.4. MEN I. Imaging Tests at Initial Evaluation and Subsequent Monitoring
- 3.5. MEN I. Primary Hyperparathyroidism (PHPT) Treatment: Relapse Management
- 3.6. MEN I. Pancreatic Neuroendocrine Tumors: Surgical Indications
- 3.7. Managing of Other Tumors
  - 3.7.1. Neuroendocrine Tumors (NETs) in Atypical Locations: Bronchial and Thymic NETs
  - 3.7.2. Screening, Monitoring and Treatment for Other Neoplasms
- 3.8. Multiple Endocrine Neoplasm Type II (MEN II): MEN II Genetics
  - 3.8.1. RET Oncogene
  - 3.8.2. Genotype-Phenotype Correlation
  - 3.8.3. Less Common Mutations
- 3.9. MEN II: Medullary Carcinoma
  - 3.9.1. Evaluation and Monitoring after Knowing the Carrier's Condition
  - 3.9.2. Prophylactic Thyroidectomy
- 3.10. MEN II: Primary Pheochromocytoma and Hyperparathyroidism
  - 3.10.1. Evaluation and Monitoring after Knowing the Carrier's Condition
  - 3.10.2. Indications for Hyperparathyroidism Treatment in MEN II Patients
- 3.11. MEN II: Other MEN II Manifestations
- 3.12. Others Multiple Endocrine Neoplasm Syndromes

# 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"*

## 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:

1. 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 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.

*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.*



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.



06

# Certificate

The Postgraduate Diploma in Adrenal Tumors and Hereditary Endocrine Neoplasm Syndromes guarantees, in addition to the most rigorous and up-to-date training, access to a qualification issued by TECH Global University.





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*Successfully complete this training program and receive your diploma without travel or laborious paperwork”*

This program will allow you to obtain your **Postgraduate Diploma in Adrenal Tumors and Hereditary Endocrine Neoplasm Syndromes** endorsed by **TECH Global University**, the world's largest online university.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

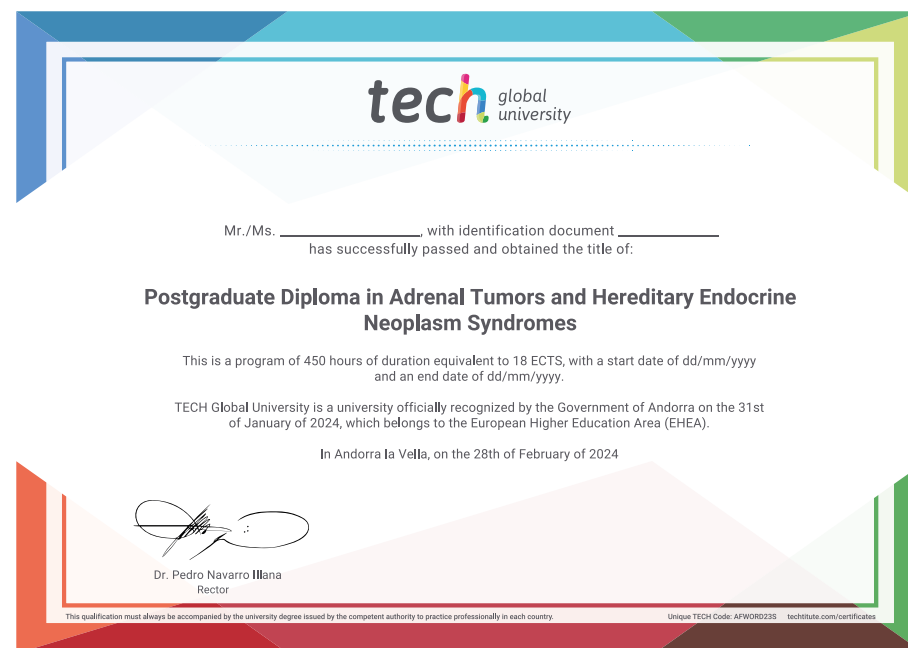
This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Diploma in Adrenal Tumors and Hereditary Endocrine Neoplasm Syndromes**

Modality: **online**

Duration: **6 months**

Accreditation: **18 ECTS**



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

health future confidence people education information tutors guarantee accreditation teaching institutions technology learning community commitment personalized service innovation knowledge present online training development language virtual classroom



**Postgraduate Diploma**  
Adrenal Tumors and  
Hereditary Endocrine  
Neoplasm Syndromes

- » Modality: **online**
- » Duration: **6 months**
- » Certificate: **TECH Global University**
- » Credits: **18 ECTS**
- » Schedule: **at your own pace**
- » Exams: **online**

# Postgraduate Diploma

## Adrenal Tumors and Hereditary Endocrine Neoplasm Syndromes