

# Postgraduate Certificate Hypothalamic-Pituitary Tumor Pathology





## Postgraduate Certificate Hypothalamic-Pituitary Tumor Pathology

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

Website: [www.techtute.com/us/medicine/postgraduate-certificate/hypothalamic-pituitary-tumor-pathology](http://www.techtute.com/us/medicine/postgraduate-certificate/hypothalamic-pituitary-tumor-pathology)

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# 01

# Introduction

Tumors affecting the brain or its surroundings always have a special delicacy, given the vital importance of this organ for their correct functioning. If attention is paid to the Hypothalamus and Pituitary regions, the Tumors that are generated in these areas can end up deriving in Cushing's Syndrome or Hyperactivity, among other symptoms that hinder the patient's normal life. For this reason, it is necessary for Medical Professionals to thoroughly study the Tumor Pathologies of these areas. That is why TECH has prepared a complete program where students will greatly improve their knowledge in this area, also increasing their own possibilities of professional promotion in their respective Oncology Departments.





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*Understanding Hypothalamus and Pituitary Tumors will give you the necessary expertise to become a reference among your fellow Oncologists”*

Cushing's Syndrome, Gigantism, Hyperthyroidism (although on rare occasions) or Developmental Delay are some of the Symptoms that patients affected by Tumors in the Hypothalamus and Pituitary Areas may present. Therefore, physicians who have a specialty in this area of Oncology will have priority and medical relevance to treat patients with these complicated pathologies.

This Postgraduate Certificate at TECH makes special emphasis on the Surgical and Pharmacological Treatment for these types of Tumors, as well as for the previous phases of Clinical Classification and Prognosis so students have a global understanding of the entire Clinical Process, from detection to applying the appropriate treatment.

This is a unique opportunity to specialize in a field of Oncology that will allow students to grow professionally, acquiring knowledge that will differentiate them from their peers and allow them to stand out when dealing with all kinds of Hypothalamic or Pituitary Tumors.

A program that has the additional advantage of being taught in a completely online format. This gives students the necessary flexibility to take on the entire course load without leaving aside their own personal or professional responsibilities.

The **Postgraduate Certificate in Hypothalamic-Pituitary Tumor Pathology** is 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



*This Postgraduate Certificate will make a difference when it comes to adding and growing in the field of Oncology”*

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*You will be welcomed into a large healthcare educational family, backed by the more than 4,000 professors, full professors and experts who are part of TECH”*

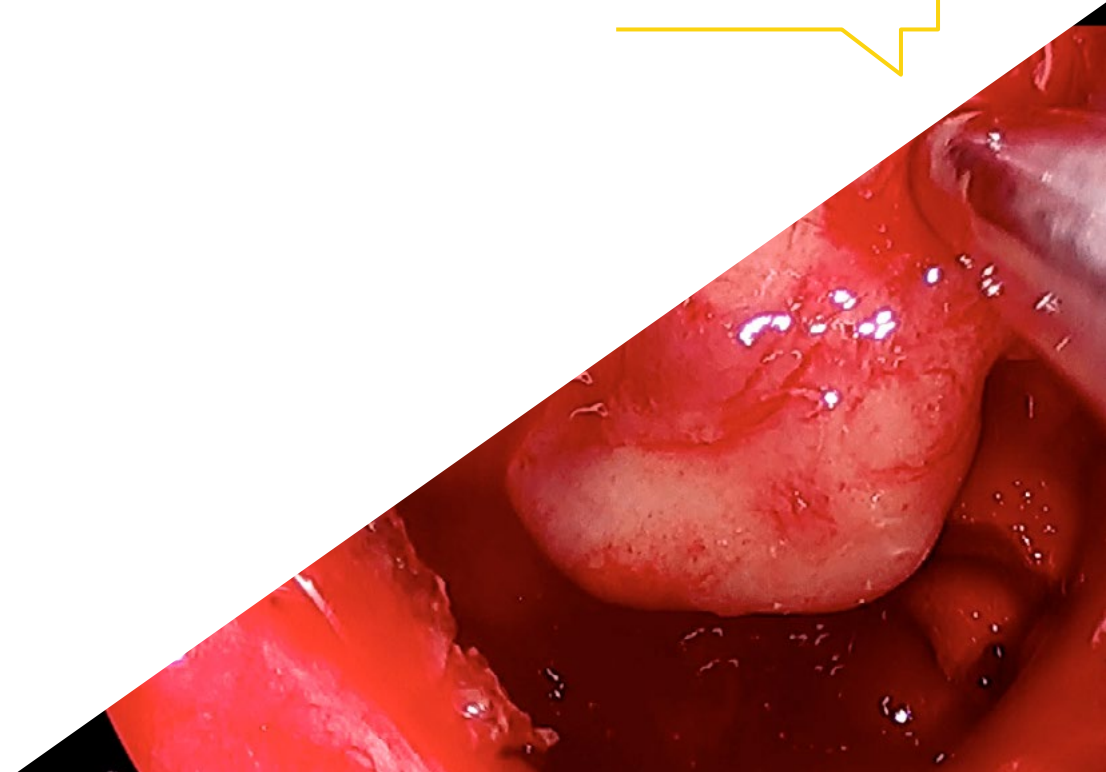
The program's teaching staff includes professionals from the sector who contribute their work experience to this training program, as well as renowned specialists from leading societies and prestigious universities.

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.

*Hypothalamus and Pituitary Tumors will hide no secrets from you after acquiring the expert knowledge this program offers.*

*This is your best avenue to grow professionally and become an Oncologist with your own merits, showing interest in continuing to improve.*



# 02 Objectives

TECH knows that its students seek professional and personal improvement through specialized knowledge. That is why the program objective is none other than to ensure greater professional and salary projection for the Oncology physicians who want to build their career toward treating tumors in this specific region of the brain.





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*Your goal is to provide better care for your patients while continuing to improve your career. This Postgraduate Certificate will meet and exceed all your expectations to do so”*



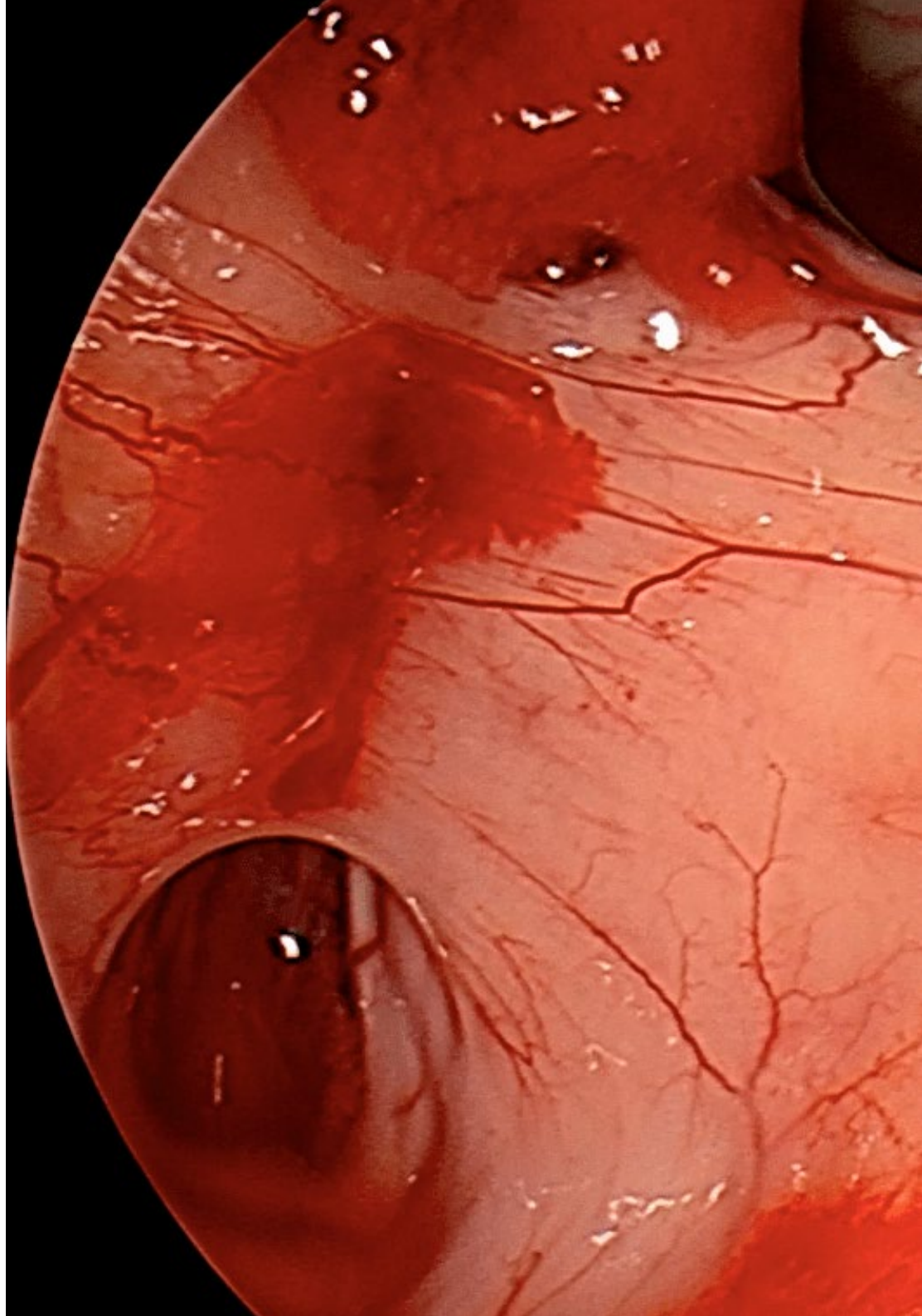
## General Objectives

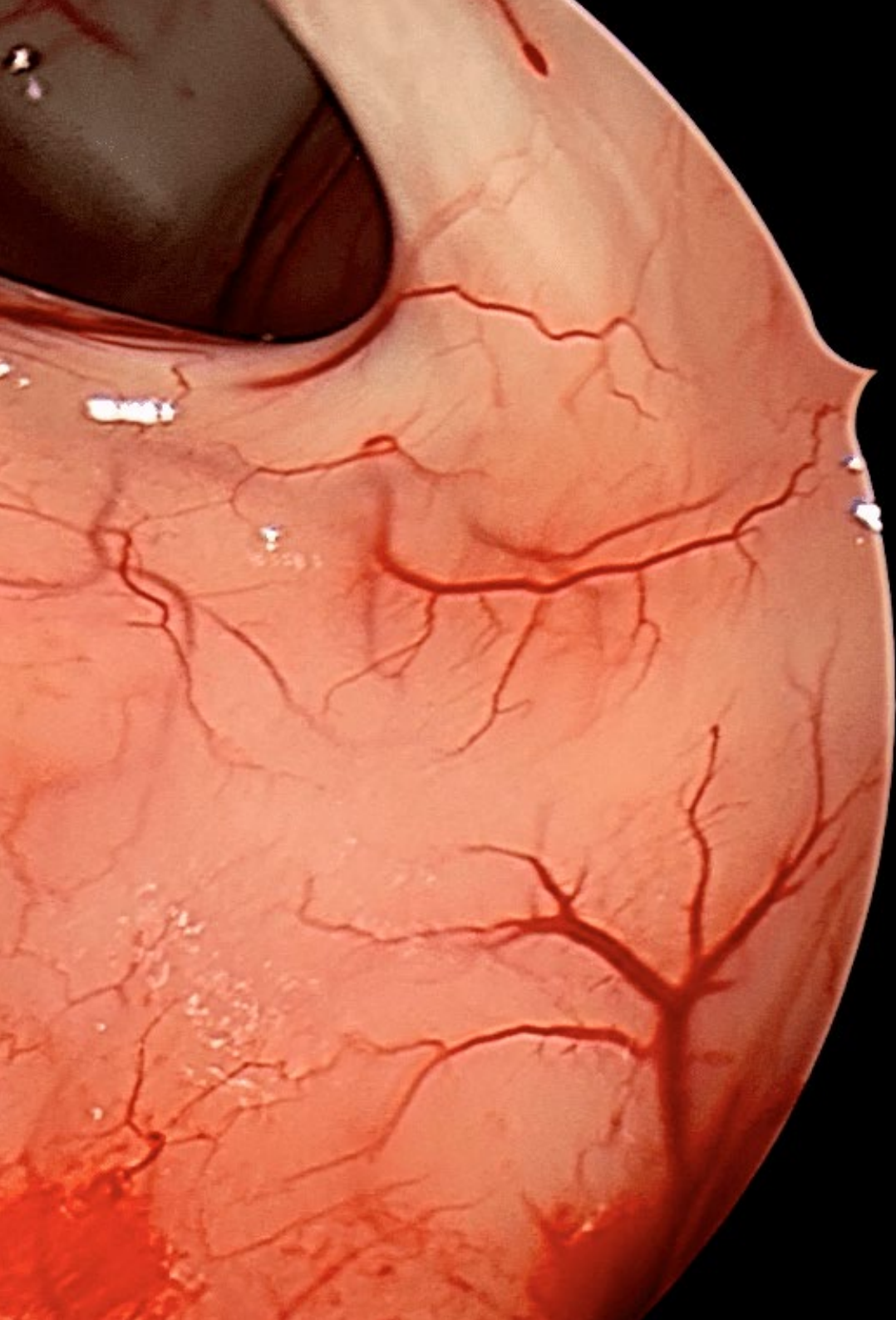
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- ◆ Deepen the knowledge, diagnosis and treatment of Endocrine Oncologic Pathology
- ◆ Achieve an update in the most novel aspects in the Diagnosis and Treatment of Endocrine Oncologic Pathology
- ◆ Advance in the Multidisciplinary Approach essential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



*The job promotion you are looking for is closer than you think. Grow with TECH and enroll today in this Postgraduate Certificate”*





## Specific Objectives

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- ◆ Acquire a deep understanding of the clinical manifestations and diagnosis of functioning and non-functioning pituitary tumors
- ◆ Delve deeper into the Surgical Treatment of Hypothalamic-Pituitary Region Tumors, the Approach Routes, the Perioperative Management, and the Postoperative Functional Evaluation
- ◆ Know the indications and types of pharmacological treatment for the different types of tumors
- ◆ Gain in-depth knowledge of the Indications and Types of Radiotherapy, its efficacy and side effects Become familiar with the Indications for other Treatments

# 03

# Course Management

The best professionals in the Oncology and Endocrine field have collaborated with TECH to develop all the content in the program, which provides students with all the necessary knowledge to become an expert in the Treatment and Approach to Pituitary and Hypothalamic Tumors. Thanks to the experience of the professors in this field, students are guaranteed the best possible guidance in all questions and doubts that may arise during the program.



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*By receiving advice from the best professionals in your field, you will be gradually taking the right steps to become a future Oncology reference”*

## International Guest Director

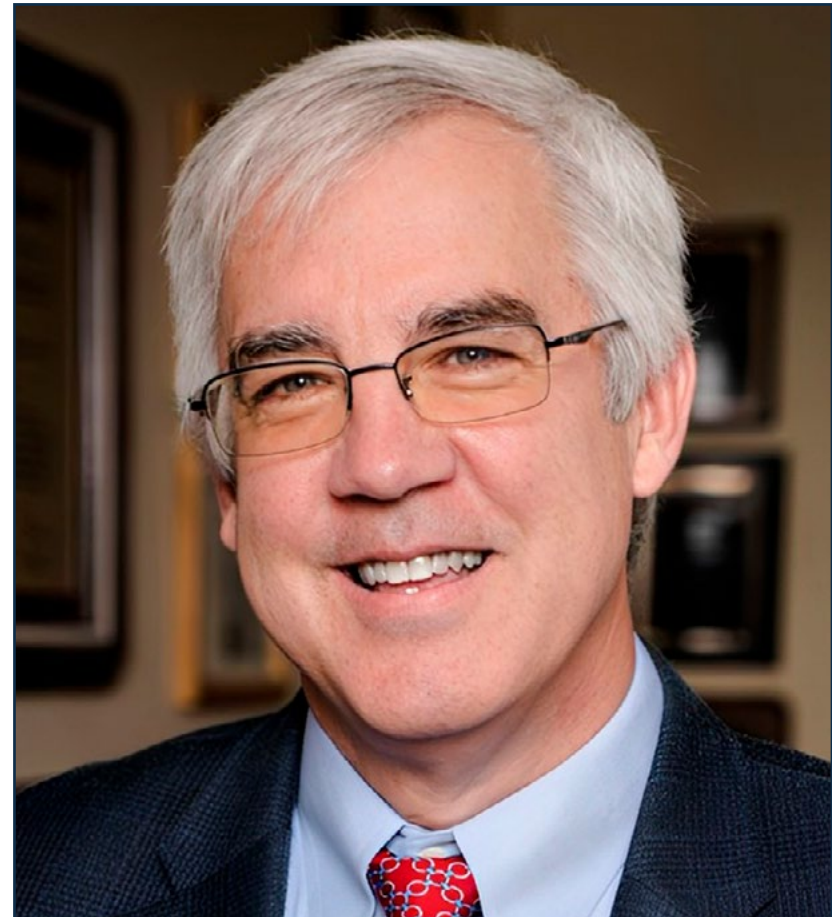
Dr. R. Michael Tuttle has developed, for more than 3 decades, a successful career in the medical field of Endocrinology. Thanks to his exceptional skills, this expert has received numerous international awards. He has received the Lewis Braverman Lectureship Award from the American Thyroid Association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

- ◆ Head of the Endocrinology Service at La Ribera University Hospital
- ◆ Associate Editor for the Endocrinology, Diabetes and Nutrition Journal (Elsevier)
- ◆ Active member of the Neuroendocrinology Area, Spanish Society of Endocrinology
- ◆ Member of the Board of Directors, Spanish Society of Endocrinology and Nutrition Therapy
- ◆ Member of the Board of Directors, Spanish Society Foundation of Endocrinology and Nutrition Therapy
- ◆ Degree in Medicine and Surgery from the University of Valencia

# 04

## Structure and Content

Aware that students who choose this Postgraduate Certificate in Hypothalamic-Pituitary Tumor Pathology are looking for a rapid professional improvement, the methodology used by TECH promotes the speedy acquisition of the most important aspects in this field of Oncology. Through *Relearning*, explanatory videos and a reduced teaching load, students are presented with an unbeatable opportunity to make the most of all the content without making a large personal or academic investment.





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*With a unique educational method, you will get your qualification in Hypothalamic-Pituitary Tumor Pathology directly, without final assignments, papers or projects”*

## Module 1. Hypothalamic-Pituitary Tumor Pathology

- 1.1. Pituitary Tumors Pathogenesis
- 1.2. Clinical and Prognostic Classification for Sellar Tumors: List Clinical, Radiological, Functional and Anatomical Pathological Elements to Characterize the Prognosis of Sellar Lesions
  - 1.2.1. Adenomas
    - 1.2.1.1. Clinical, Functional and Radiological Classification
    - 1.2.1.2. Pathological Anatomy of Pituitary Adenomas
  - 1.2.2. Non-Adenomatous Sellar Tumors: Rathke's Pouch (Cysts, Craniopharyngiomas), Meningiomas
  - 1.2.3. Non-Proliferative Lesions: Inflammatory, Hemorrhagic
- 1.3. Imaging Study for Hypothalamic-Pituitary Tumor Pathology
- 1.4. Ophthalmologic Evaluation for Hypothalamic-Pituitary Tumor Pathology
- 1.5. Prolactinoma: Differential Diagnosis for Hyperprolactinemia
- 1.6. Acromegaly.
- 1.7. ACTH-Dependent Cushing's Syndrome: Cushing's Disease
- 1.8. Non-Functioning Pituitary Adenomas and Gonadotropinomas
- 1.9. Less Common Pituitary Adenomas
  - 1.9.1. Thyrotropinomas: Adenomas Plurihormonales
  - 1.9.2. Aggressive Pituitary Adenomas
- 1.10. Other Sellar Area Tumors
  - 1.10.1. Rathke's Pouch Cyst and Craniopharyngioma
  - 1.10.2. Meningioma: Pituicytoma





- 1.11. Surgical Treatment for Sellar and Parasellar Lesions
  - 1.11.1. Surgical Treatment
  - 1.11.2. Postoperative Hypothalamic-Pituitary Functional Evaluation
- 1.12. Radiotherapy and Radionuclide Therapy for Sellar and Parasellar Lesions
  - 1.12.1. Radiotherapy
  - 1.12.2. Radionuclide Therapy
  - 1.12.3. Long-term Monitoring after Radiotherapy
- 1.13. Importance of Tumor Committees and Patient Associations
  - 1.13.1. Multidisciplinary Approach
  - 1.13.2. Role of Patient Associations: Association of Patients Affected by Acromegaly

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*The future of healthcare education is already here. Don't get left behind and enroll in a program where you make all the decisions”*

# 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.



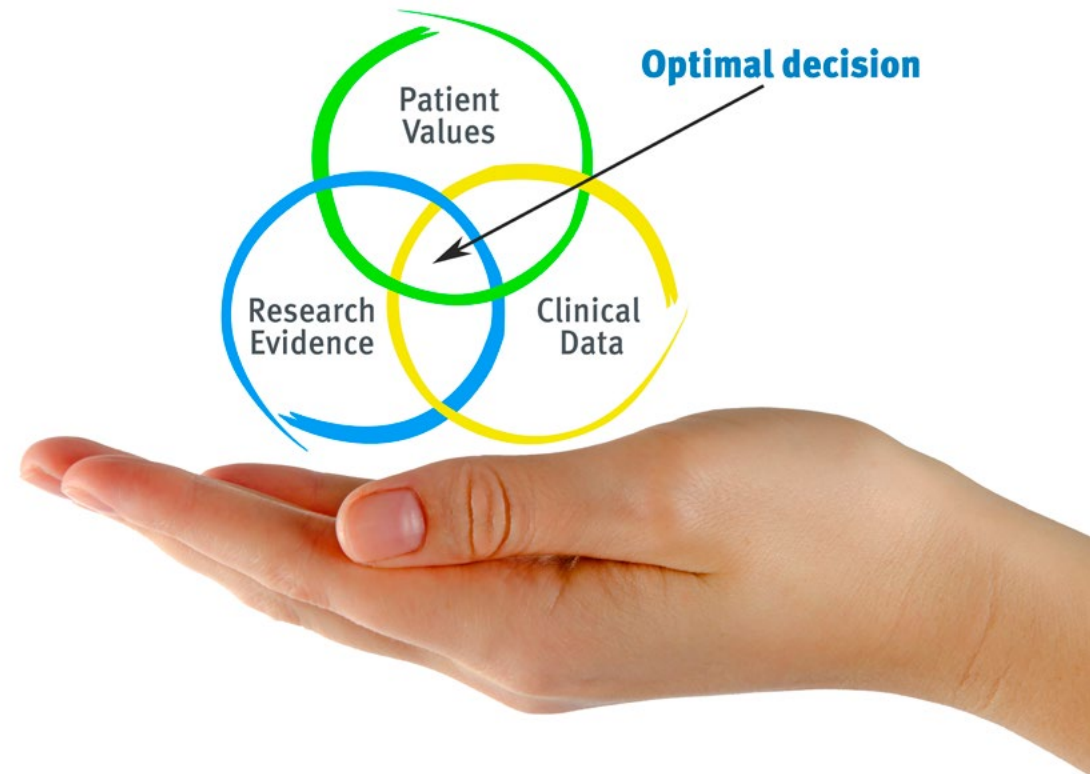
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*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## 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 Certificate in Hypothalamic-Pituitary Tumor Pathology guarantees, in addition to the most rigorous and up-to-date training, access to a qualification issued by TECH Technological University.



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

The **Postgraduate Certificate in Hypothalamic-Pituitary Tumor** Pathology is 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** diploma 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 Hypothalamic-Pituitary Tumor Pathology**

Official Number of Hours: **150 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.



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



**Postgraduate Certificate**  
Hypothalamic-Pituitary  
Tumor Pathology

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

**Postgraduate Certificate**  
Hypothalamic-Pituitary  
Tumor Pathology