

**Postgraduate Certificate**  
Pathological Anatomy  
Applied to Ocular Oncology



## Postgraduate Certificate Pathological Anatomy Applied to Ocular Oncology

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

Website: [www.techtute.com/us/medicine/postgraduate-certificate/pathological-anatomy-applied-ocular-oncology](http://www.techtute.com/us/medicine/postgraduate-certificate/pathological-anatomy-applied-ocular-oncology)

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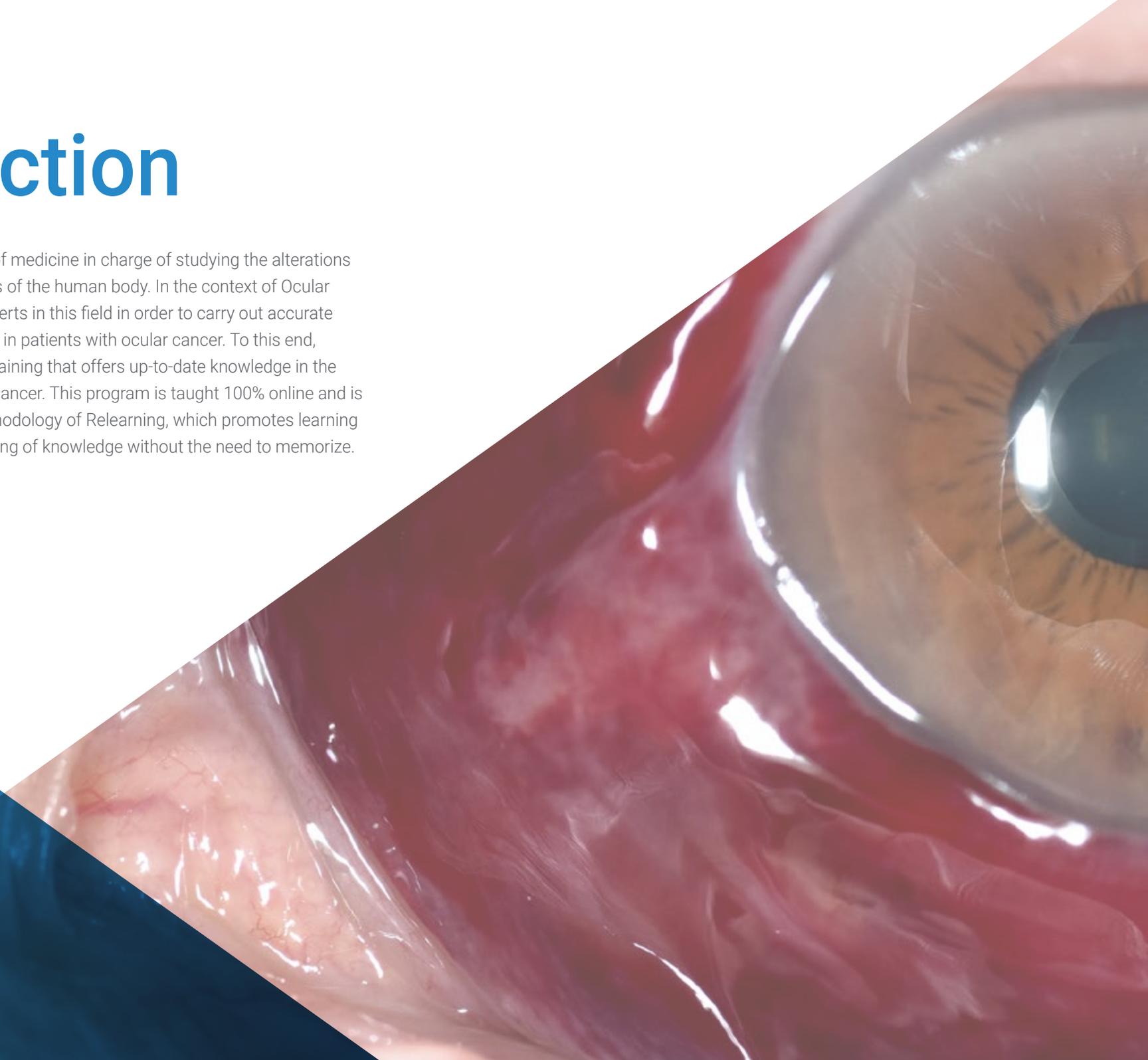
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# 01

# Introduction

Anatomic Pathology is the branch of medicine in charge of studying the alterations that occur in the tissues and organs of the human body. In the context of Ocular Oncology, it is essential to have experts in this field in order to carry out accurate diagnoses and effective treatments in patients with ocular cancer. To this end, TECH has designed a specialized training that offers up-to-date knowledge in the diagnosis and treatment of ocular cancer. This program is taught 100% online and is offered under the pedagogical methodology of Relearning, which promotes learning through constant review and updating of knowledge without the need to memorize.





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*With this program you will have the opportunity to acquire skills to identify the main molecular alterations present in Uveal Melanoma and Retinoblastoma, two of the most studied tumors in the specialty"*

Pathological Anatomy Applied to Ocular Oncology is a crucial field of study in the detection and treatment of ocular diseases. Understanding the anatomy and histology of the eye, as well as tumors that can affect the ocular orbit and other components of the eye, is critical for accurate diagnosis and effective treatment. Given the importance of this area of specialization, it is essential that health care professionals be trained in the latest advances in the diagnosis and treatment of ocular diseases.

The need for a Postgraduate Certificate in this topic, led TECH to conduct training for the correct detection and treatment in Pathological Anatomy Applied to Oncology. Early identification and proper treatment can make the difference in the recovery of patients. For this reason, the syllabus of this program will explore essential topics such as the anatomy of the eye, histology of the eye, tumors of the ocular orbit, tumors of the conjunctiva and caruncle, uveal tumors, uveal melanoma, neurosensory retinal tumors, retinal epithelium tumors, optic disc and optic nerve tumors, lacrimal gland tumors and tumors of the lacrimal drainage system.

The Postgraduate Certificate also offers a detailed step-by-step understanding of each of the topics, which will allow health professionals to develop a specialized skill in the detection and treatment of ocular diseases. The methodology of the program will be theoretical-practical with a 100% online model, in order to provide participants with an in-depth understanding of ocular anatomy and pathology. Healthcare professionals will have access to the latest diagnostic and treatment technologies for eye diseases and will be able to develop specialized skills in the detection and treatment of eye diseases.

This **Postgraduate Certificate in Pathological Anatomy Applied to Ocular Oncology** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ◆ The development of case studies presented by medical experts focused on Pathological Anatomy Applied to Ocular Oncology
- ◆ Graphic, schematic, and 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



*In this program you will learn everything you need to know about the anatomy and normal histology of the eye to deepen your knowledge of the tumor pathology of the eyeball"*

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*This Postgraduate Certificate will allow you to deepen your knowledge of the different treatment techniques used in Ocular Oncology, such as chemotherapy, radiotherapy and biological therapy"*

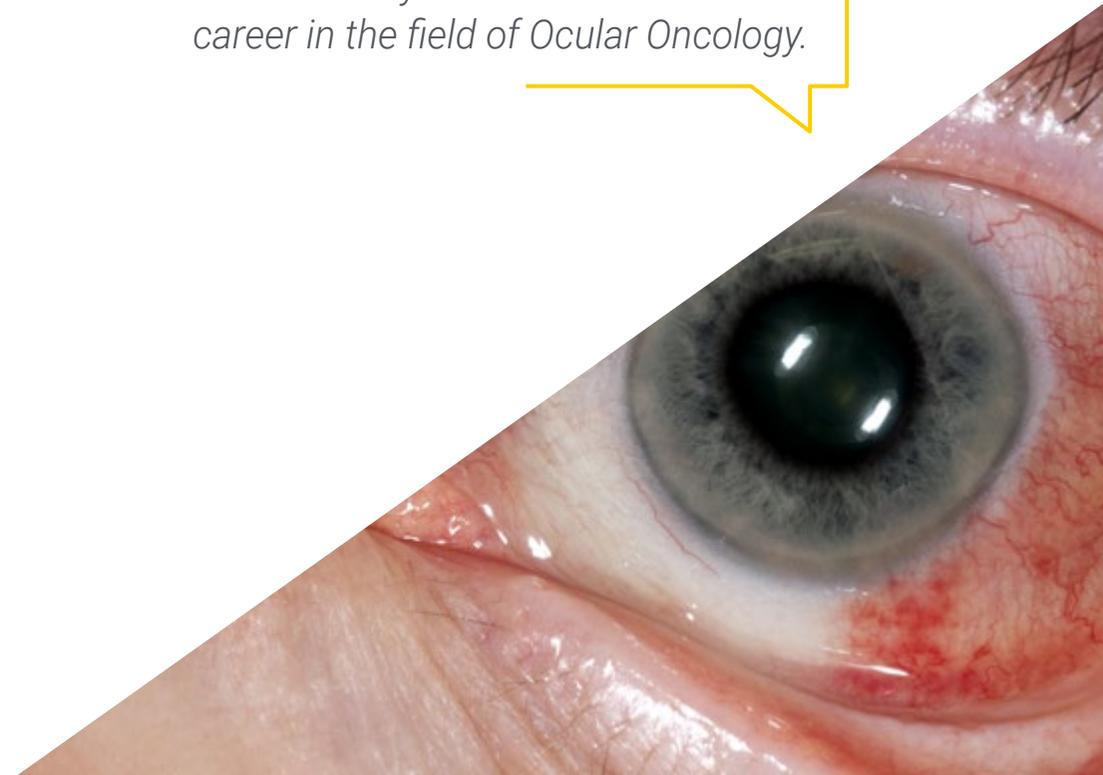
*Take advantage of the opportunity to access quality materials and resources, such as downloadables, videos and case studies, that will allow you to acquire a solid and updated knowledge.*

*With this Postgraduate Certificate, you will have the opportunity to broaden your professional horizons and personal growth, which will allow you to have a successful career in the field of Ocular Oncology.*

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

Its multimedia content, developed with the latest educational technology, will provide the professionals with situated and contextual learning, i.e., a simulated environment that will provide an immersive education programmed to learn in real situations.

The design of this program focuses on Problem-Based Learning, by means of which the professionals must try to solve the different professional practice situations that are presented throughout the academic course. For this purpose, the students will be assisted by an innovative interactive video system created by renowned experts.



# 02 Objectives

In order to provide participants with specialized training in the normal anatomy and histology of the eye, as well as in the tumor pathology that affects this structure and its adjacent structures. TECH has provided an entire study module for graduates to delve deeper into these various topics. Expanding their skills in the knowledge of the histopathological characteristics of the most common tumors, and in the identification of the main molecular alterations present in Uveal Melanoma and Retinoblastoma, pathologies that require an accurate and rapid diagnosis for the best therapeutic approach. With this program, students will be able to acquire the necessary tools for an effective and updated clinical practice in the specialty.





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*With this program, you will have the opportunity to specialize in a field in constant growth and labor demand, which will give you the opportunity to expand your job opportunities”*



## General Objectives

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- ◆ Update knowledge on the different tumors that can affect the eye and its appendages
- ◆ Deepen in the diagnostic-therapeutic approach of ocular neoplasms
- ◆ Delve into the main common characteristics of ocular neoplasms
- ◆ Deepen in the different tumor lesions that can affect the eyelids, the lacrimal drainage pathway and the orbit
- ◆ Investigate the different types of tumors that can be located on the ocular surface, cornea and conjunctiva
- ◆ Delve into the most recent research in Oncological Ophthalmology





## Specific Objectives

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- ◆ Deepen in the normal anatomy and histology of the eye
- ◆ Delve into the knowledge of the tumor pathology of the eyeball and related structures, reviewing the histopathological characteristics of the most frequent tumors
- ◆ Identify the main molecular alterations with clinical relevance present in Uveal Melanoma and Retinoblastoma



*Acquire skills to perform anatomopathological reports and accurate diagnoses that allow optimal treatment of patients"*

03

# Course Management

The teaching staff of the Postgraduate Certificate in Pathological Anatomy Applied to Ocular Oncology at TECH is composed of the best professionals in the area of Ocular Oncology. These experts have extensive experience in the diagnosis and treatment of ocular pathologies, in addition to constantly updating and improving their knowledge in this specialty. TECH ensures that its students receive the best training and for this, has the best team of highly qualified experts who teach the classes in a collaborative and participatory environment, encouraging interaction and continuous learning.



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*Thanks to this approach and the quality of the faculty, students will have the possibility to develop their professional career in the field of Ocular Oncology with the confidence and security that a quality education offers"*

## International Guest Director

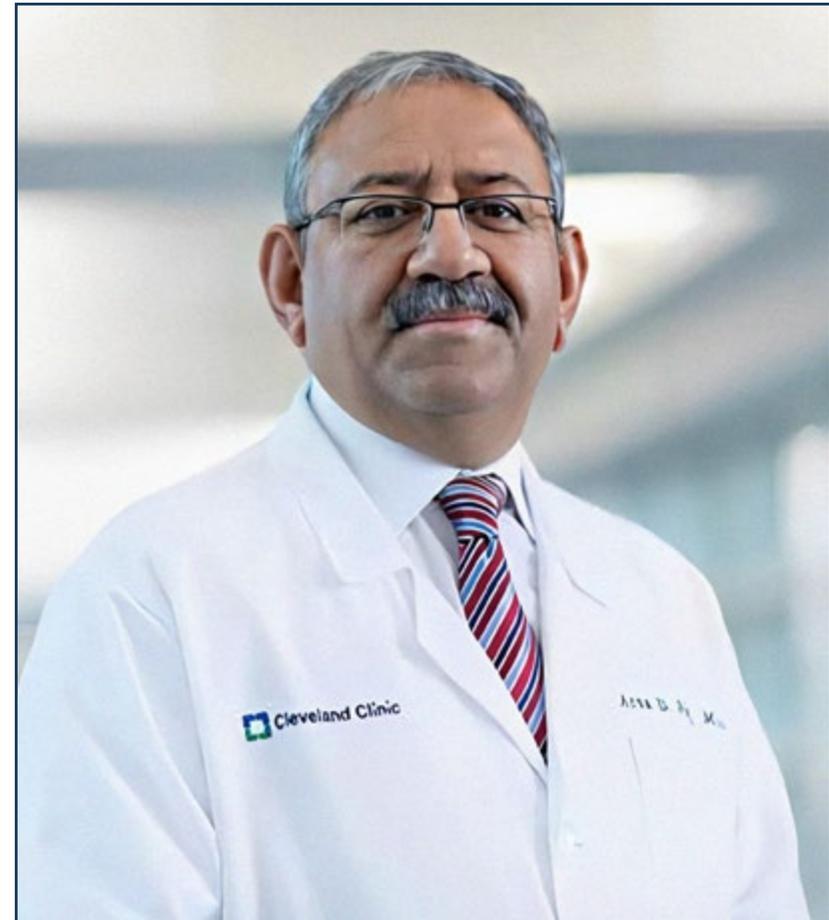
Dr. Arun Singh is a true international eminence in Ophthalmic Oncology, a field to which he has dedicated more than three decades of his professional career. His career has been focused on research and treatment of eyelid and conjunctival tumors. He has also delved into pathologies such as Retinoblastoma and Uveal Melanoma.

For his exceptional clinical career, this expert has been recognized by both the Royal College of Ophthalmologists in the United Kingdom and the American Board of Ophthalmology in the United States. In addition, he has received a Career Achievement Award. These distinctions, which underline his excellence, are also endorsed by his prolific scientific work, with more than 160 articles in journals of high academic impact.

Another of his important contributions to this medical specialty has been the book *Clinical Ophthalmic Oncology*, considered an essential reference text for experts and professionals in training. His work as Editor of the prestigious *British Journal of Ophthalmology* is also noteworthy.

His excellent healthcare praxis has allowed him to take on challenges such as leading the Department of Ophthalmic Oncology at the Cleveland Clinic in Ohio, USA. From that position he has dedicated extensive efforts to the study of other ocular pathologies and, in turn, collaborates with the Pediatric Program of Uncommon Cancers and Blood Diseases.

As for his training, Dr. Singh began his medical education in India, at the Jawaharlal Institute and Mandras University. Subsequently, he developed internships and fellowships at the University of Florida, as well as completed his internship at St. Luke's Hospital in Bethlehem. He completed his specialization in Ocular Oncology at Wills Eye Hospital in Philadelphia. He has also been linked to highly reputable international organizations such as the Association for Research in Vision and Ophthalmology.



## Dr. Singh, Arun

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- Director, Department of Ophthalmic Oncology, Cleveland Clinic, Ohio, USA
- Editor of the British Journal of Ophthalmology
- Editor of the academic book Clinical Ophthalmic Oncology
- Specialist in Ophthalmology from the University of Florida
- Internships at Watford General and St. Luke's Hospitals, Watford, Florida
- Graduate of Medicine and Surgery from the Jawaharlal Institute and the University of Madras
- Member of: International Association for Research in Vision and Ophthalmology, International Society of Ocular Oncology, American Academy of Ophthalmology, Royal College of Ophthalmologists of London, UK, Royal College of Surgeons of Edinburgh, UK

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

## Management



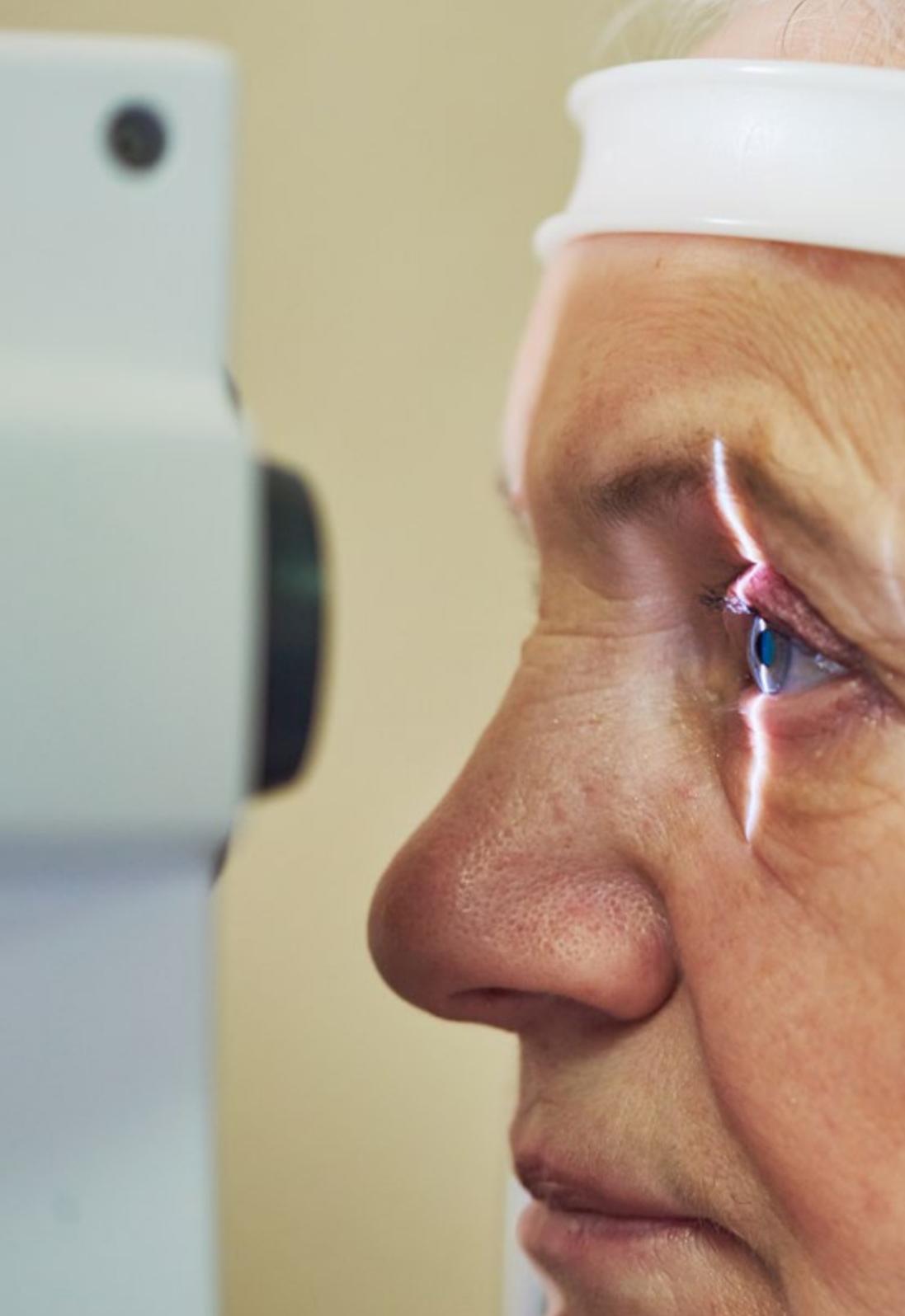
### Dr. Garrido Hermosilla, Antonio Manuel

- ♦ Medical Specialist in Ophthalmology
- ♦ Specialist in the Ophthalmology Service of the Virgen Macarena University Hospital
- ♦ Specialist in Oculoplasty-Orbit and Ocular Oncology Units
- ♦ Specialist in National Reference Units (CSUR) for Adult and Childhood Intraocular Tumors
- ♦ Co-coordinator of Andalusian Reference Units (UPRA) for the Integral Management of the Anophthalmic Cavity and for Graves' Orbitopathy
- ♦ Tutor for Ophthalmology Interns



### Dr. Relimpio López, María Isabel

- ♦ Coordinator of the Adult Intraocular Tumors Unit at the CSUR of the Hospital Virgen Macarena
- ♦ Specialist Area Physician (FEA) in the Ophthalmology Service at the University Hospital Virgen Macarena (HUVVM)
- ♦ Specialist in the Retina and Ocular Oncology Units of the HUVVM
- ♦ Coordinator of the National Reference Unit (CSUR) for Adult Intraocular Tumors
- ♦ Specialist at the National Reference Unit (CSUR) for Intraocular Tumors of Childhood
- ♦ Ophthalmologist in the European Network ERN-PaedCan for Retinoblastoma
- ♦ PhD in Medicine, University of Seville
- ♦ Clinical Tutor of Ophthalmology, Medical Degree, University of Seville



## Professors

### Dr. Ríos Martín, Juan José

- ◆ Director of the Clinical Management Unit at the Virgen Macarena University Hospital
- ◆ Chief of Section of the Anatomic Pathology Department of the Virgen Macarena University Hospital
- ◆ Area Specialist of the Anatomical Pathology Department of the HUVM
- ◆ PhD of Medicine, University of Seville
- ◆ Member of the European Network ERN-PaedCan for Retinoblastoma

### Dr. Torres Gómez, Francisco Javier

- ◆ Doctor Specialist in Ophthalmology at Virgen Macarena University Hospital
- ◆ Area Specialist in the Anatomical Pathology Service of the Hospital
- ◆ Surgical Pathologist at the High Resolution Hospital of Utrera
- ◆ PhD in Medicine, University of Seville
- ◆ Master's Degree in Clinical Management. CEU Cardenal Herrera
- ◆ Postgraduate Diploma in Dermatopathology
- ◆ Member of the Board of Directors of Spanish Society of Cytology

### Dr. Gutiérrez Domingo, Álvaro

- ◆ Medical Specialist in Anatomic Pathology
- ◆ Medical Specialist in Anatomic Pathology
- ◆ Specialist Area Physician (FEA) in the Ophthalmology Service at the University Hospital Virgen Macarena (HUVM)
- ◆ Member of the Spanish Pathological Anatomy Society

### Dr. Pérez Pérez, Manuel

- ◆ Medical Specialist from Anatomic Pathology
- ◆ Doctor Specialist in the Ophthalmology Service at Ophthalmology at Virgen Macarena University Hospital
- ◆ Collaborator of the Medical Oncology Service of the Virgen Macarena University Hospital
- ◆ Member of the Spanish Society of Pathological Anatomy

# 04

## Structure and Content

The training that TECH offers in the syllabus of the program is exhaustive and rigorous, which will allow the students to acquire a global vision of the tumor pathology of the eye and related structures. The pedagogical methodology used is Relearning, along with the flexibility to organize academic resources, which allows the students a 100% online education of high quality. The content of the program includes a focus on the normal anatomy and histology of the eye, and then delves into the most common tumors, as well as the main molecular alterations present in Uveal Melanoma and Retinoblastoma. In addition, throughout the program, the students will learn about the epidemiology and histopathological characteristics of each tumor, as well as its treatment and differential diagnosis.



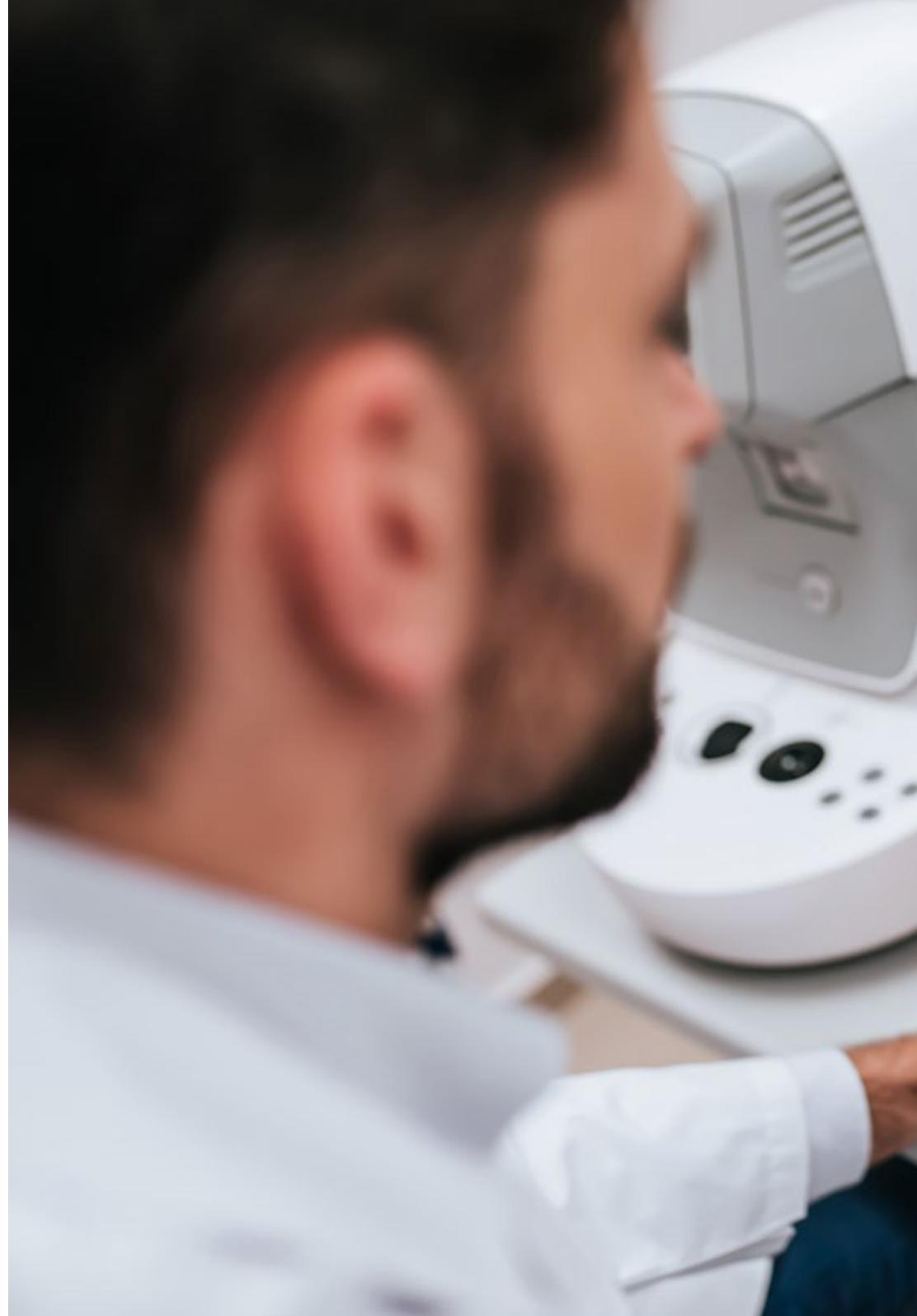


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*In this Postgraduate Certificate, topics such as tumors of the lacrimal gland and the lacrimal drainage system are addressed, thus ensuring that this qualification offers complete and specialized knowledge"*

## Module 1. Pathological Anatomy Applied to Ocular Oncology

- 1.1. Anatomy and Histology of the Eye
  - 1.1.1. Eye Anatomy
  - 1.1.2. Histology of the Eye
- 1.2. Tumors of the Ocular Orbit
  - 1.2.1. Pediatric Tumors of the Orbit
  - 1.2.2. Benign Tumors of the Orbit
  - 1.2.3. Malignant Tumors of the Orbit
- 1.3. Conjunctival and Corneal Tumors
  - 1.3.1. Epithelial Tumors
  - 1.3.2. Melanocytic Tumors
  - 1.3.3. Other tumours
- 1.4. Tumors of the Uvea (non-melanoma)
  - 1.4.1. Benign Melanocytes tumors
  - 1.4.2. Epithelial Tumors
  - 1.4.3. Other tumours
- 1.5. Uveal Melanoma
  - 1.5.1. Epidemiology
  - 1.5.2. Histopathology
  - 1.5.3. Molecular Aspects
- 1.6. Neurosensory Retinal Tumors
  - 1.6.1. Retinoblastoma
  - 1.6.2. Astrocytoma
  - 1.6.3. Vitreoretinal Lymphoma
- 1.7. Retinal Epithelial Tumors
  - 1.7.1. Benign Tumors
  - 1.7.2. Malignant tumours





- 1.8. Optic Disc and Optic Nerve Tumors
  - 1.8.1. Primary Tumors
  - 1.8.2. Secondary Tumors
- 1.9. Lacrimal Gland Tumors
  - 1.9.1. Epithelial Tumors
  - 1.9.2. Hematolymphoid Tumors
  - 1.9.3. Secondary Tumors
- 1.10. Tear Drainage System Tumors
  - 1.10.1. Epithelial Tumors
  - 1.10.2. Other tumours



*Learn from the best specialists and teachers in Pathological Anatomy Applied to Ocular Oncology and become an expert in the field, able to apply your knowledge in the professional world"*

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 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 Pathological Anatomy Applied to Ocular Oncology guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.



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

This program will allow you to obtain your **Postgraduate Certificate in Pathological Anatomy Applied to Ocular Oncology** 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 Certificate in Pathological Anatomy Applied to Ocular Oncology**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



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



**Postgraduate Certificate**  
Pathological Anatomy  
Applied to Ocular Oncology

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

# Postgraduate Certificate

## Pathological Anatomy Applied to Ocular Oncology