



# Postgraduate Certificate

# Retinoblastoma

» Modality: online

» Duration: 6 weeks

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/medicine/postgraduate-certificate/retinoblastoma

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# tech 06 | Introduction

Retinoblastoma is a malignant ocular tumor that occurs mainly in childhood and is considered one of the most frequent tumors in the pediatric age. Due to its complexity in terms of diagnosis and treatment, it is necessary that health professionals have specialized information in this area. That is why TECH presents the Postgraduate Certificatem in Retinoblastoma, which seeks to deepen the knowledge of this type of ocular tumor and its treatment. This, taking into account that, at present, the disease represents an important challenge for health professionals, especially for ophthalmologists and pediatric oncologists.

Due to the rarity of the tumor, the necessary expertise for its diagnosis and adequate treatment is not always available. For this reason, TECH comprehensively addresses the subject, so that specialists can be updated and offer optimal treatment to patients. Within the program, participants will be able to deepen their knowledge of the epidemiology, genetics, clinical and diagnostic aspects of the disease, as well as the different therapeutic options available, including chemoreduction, consolidation and enucleation. In addition, relevant topics such as therapeutic response, follow-up and possible complications that may occur will be addressed.

The course will be taught 100% online with a theoretical-practical methodology based on the resolution of clinical case studies and the specification of materials such as videos and downloadable materials. Renowned specialists in the field will participate and share their experience and knowledge with the participants. Likewise, the program will provide the students with the availability of time and resources, so that they can complete the different topics of the module whenever they wish.

This **Postgraduate Certificate in Retinoblastoma** 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 Retinoblastoma
- 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 the self-assessment process can be carried out 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



Become an expert in Retinoblastoma thanks to this Postgraduate Certificate! Discover the secrets of this disease and learn to identify its characteristics and forms of presentation"



An academic option that will lead you to implement the best strategies to address both therapeutic response and a good follow-up"

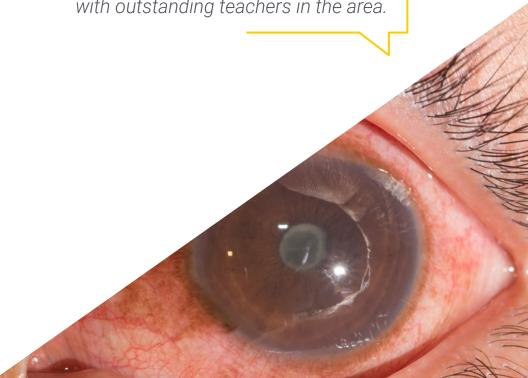
The program's teaching staff includes professionals from sector who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

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. This will be done with the help of an innovative system of interactive videos made by renowned experts.

Become an expert in Retinoblastoma with this Postgraduate Certificate. Learn from highly qualified teachers with extensive experience in the area.

Do you want to deepen your knowledge in Retinoblastoma? This Postgraduate Certificate is for you! You will discover the characteristics and forms of presentation of Retinoblastoma with outstanding teachers in the area.







# tech 10 | Objectives



# **General Objectives**

- 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**

- Further in the knowledge of Retinoblastoma
- Identify the characteristics and forms of presentation of Retinoblastoma
- Offer the tools to be able to make the differential diagnosis with other conditions
- Describe the therapeutic management of patients with Retinoblastoma



Acquire skills for the interpretation of complementary tests, such as Magnetic Resonance Imaging (MRI), which allow a complete systemic evaluation of patients with Retinoblastoma"







# 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 (HUVM)
- Specialist in the Retina and Ocular Oncology Units of the HUVM
- Coordinator of the National Reference Unit (CSUR) for Adult Intraocular Tumors
- Specialist in the National Reference Unit (CSUR) for Childhood Intraocular Tumors
- Ophthalmologist in the European Network ERN-PaedCan for Retinoblastoma
- PhD in Medicine, University of Seville
- Clinical Tutor of Ophthalmology, Medical Degree, University of Seville



# Course Management | 15 tech

#### **Professors**

# Dr. Espejo Arjona, Francisco

- Medical Specialist in Ophthalmology
- Specialist in the Ophthalmology Service of the University Hospital Virgen Macarena (HUVM) in the Retina and Ocular Oncology Units and in the National Reference Unit (CSUR) for Adult Intraocular Tumors
- Coordinator of the National Reference Unit (CSUR) for Childhood Intraocular Tumors
- Member of the European Network ERN-PaedCan for Retinoblastoma
- Ophthalmology Clinical Tutor
- Doctor of Medicine, University of Seville

#### Dr. López Domínguez, Mireia

- Medical Specialist in Pediatric Ophthalmology at Miranza Virgen de Luján Clinic
- Medical Specialist in Ophthalmology
- Specialist in the Ophthalmology service of the University Hospital Virgen Macarena (HUVM) in the Ophthalmopediatrics-Strabismus and Ocular Oncology units, and in the National Reference Unit (CSUR) for Intraocular Tumors of Childhood
- Ophthalmology Clinical Tutor
- Master in Pediatric Ophthalmology at the Hospital Sant Joan de Déu
- Member of the European Network ERN-PaedCan for Retinoblastoma

# tech 16 | Course Management

# Dr. Fernández-Teijeiro Álvarez, Ana

- Section Chief of the Pediatric Oncohematology Unit of the Virgen Macarena University Hospital
- Medical Specialist in Pediatrics
- Specialist in the Pediatrics Department of the Virgen Macarena University Hospital (HUVM)
- HUVM Node Coordinator European Network ERN-PaedCan Retinoblastoma Network
- President of the Spanish Society of Hematology and Oncology Emergencies(SEHOP)
- Pediatrics Resident Medical Interns (MIR) Mentor
- Pediatrics Clinical Tutor
- PhD in Medicine from the University of the Basque Country

### Dr. Torres García, Francisco Javier

- Medical Specialist in Ophthalmology
- Specialist in the Ophthalmology service of the University Hospital Virgen Macarena (HUVM) in the Ophthalmopediatrics-Strabismus, Ocular Oncology units, and in the National Reference Unit (CSUR) for Intraocular Tumors of Childhood
- $\bullet\,$  Member of the European Network ERN-PaedCan for Retinoblastoma
- Ophthalmology Clinical Tutor

#### Dr. Lledó de Villar, María Leticia

- Ophthalmologist at the Virgen Macarena University Hospital
- Medical Specialist in Ophthalmology
- Specialist in the Ophthalmology Department of the Virgen Macarena University Hospital (HUVM)
- PhD in Medicine, University of Seville
- Ophthalmology Clinical Tutor

#### Dr. Infante Cossío, Mónica

- Specialist in Ophthalmology at Virgen Macarena University Hospital
- Medical Specialist in Ophthalmology
- Specialist in the Ophthalmology Department of the Virgen Macarena University Hospital (HUVM)
- Associate Professor in Ophthalmology
- PhD in Medicine, University of Seville







# tech 20 | Structure and Content

# Module 1. Retinoblastoma

- 1.1. Epidemiology
  - 1.1.1. Introduction
  - 1.1.2. Incidence
  - 1.1.3. Prevalence
  - 1.1.4. Predisposing Factors
- 1.2. Genetics
  - 1.2.1. Rb Gene
  - 1.2.2. Genetic Presentations
  - 1.2.3. Genetic Tests
  - 1.2.4. Genetic Counseling
- 1.3. Clinical Symptoms
  - 1.3.1. Symptoms and Signs
  - 1.3.2. Growth Patterns
  - 1.3.3. Intraocular Seedings
- 1.4. Extraocular Involvement
  - 1.4.1. Trilateral Retinoblastoma
  - 1.4.2. Metastatic Retinoblastoma
  - 1.4.3. Second Tumors
- 1.5. Diagnosis
  - 1.5.1. Clinical Examination
  - 1.5.2. Complementary Tests
  - 1.5.3. Systemic Evaluation and Nuclear Magnetic Resonance Imaging (MRI)
  - 1.5.4. Differential Diagnosis
  - 1.5.5. Classification
- 1.6. Treatment.I: Chemoreduction
  - 1.6.1. Treatment Objectives
  - 1.6.2. Systemic Chemotherapy
  - 1.6.3. Intra-arterial Chemotherapy
  - 1.6.4. Other Chemotherapy Modalities





# Structure and Content | 21 tech

- 1.7. Treatment II: Consolidation and Enucleation
  - 1.7.1. Cryotherapy, Hyperthermia and Photocoagulation
  - 1.7.2. Brachytherapy
  - 1.7.3. Enucleation
- 1.8. Therapeutic Response and Follow-up
  - 1.8.1. Patterns of Tumor Regression
  - 1.8.2. Ophthalmologic Follow-up
  - 1.8.3. Oncologic Follow-up
- 1.9. Complications
  - 1.9.1. Complications Derived from Systemic Treatment
  - 1.9.2. Complications Derived from the Ocular Treatment
  - 1.9.3. Other complications
- 1.10. Visual Development of the Child with Retinoblastoma
  - 1.10.1. Evaluation of the Visual Function of a Child with Retinoblastoma at Diagnosis
  - 1.10.2. Sensory and Motor Exploration
  - 1.10.3. Ophthalmologic Management



Get trained in one of the most challenging and exciting areas of ophthalmology, with a 100% online program that allows you to organize your academic resources according to your needs and time availability"





# tech 24 | Methodology

#### At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

With TECH you will experience a way of learning that is shaking the foundations of traditional universities around the world.



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, trying to recreate the real conditions in the physician's professional practice.



Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method"

#### The effectiveness of the method is justified by four fundamental achievements:

- Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
- 2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
- 3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
- 4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.





# Relearning Methodology

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

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

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



# Methodology | 27 tech

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

With this methodology, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

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

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.

# tech 28 | Methodology

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



#### **Study Material**

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

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



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

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



#### **Interactive Summaries**

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

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





#### **Additional Reading**

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

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

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



## **Testing & Retesting**

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



#### Classes

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

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



#### **Quick Action Guides**

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









# tech 32 | Certificate

This **Posgraduate Certificate in Retinoblastoma** 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 **Posgraduate Certificate** issued by **TECH Technological University** via tracked delivery\*.

The diploma issued by **TECH Technological University** will reflect the qualification obtained in the Posgraduate Certificate, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: Posgraduate Certificate in Retinoblastoma
Official No of Hours: 150 h.



#### **POSTGRADUATE CERTIFICATE**

in

#### Retinoblastoma

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

ualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country.

nique TECH Code: AFWORD23S techtitute.com/ce

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

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institutions technology learning
community commitment



# Postgraduate Certificate Retinoblastoma

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

