

# Postgraduate Certificate

## Comprehensive Treatment of Retinal Detachment





## Postgraduate Certificate Comprehensive Treatment of Retinal Detachment

- » 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/comprehensive-treatment-retinal-detachment](http://www.techtute.com/us/medicine/postgraduate-certificate/comprehensive-treatment-retinal-detachment)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Course Management

---

*p. 12*

04

Structure and Content

---

*p. 16*

05

Methodology

---

*p. 20*

06

Certificate

---

*p. 28*

# 01

# Introduction

Retinal pathologies are one of the main consultations in ophthalmology offices, with special relevance of retinal detachments. Surgical interventions are essential in these cases, so it is necessary for professionals to have advanced training in this field. Thanks to this program, our students will be able to specialize in the comprehensive treatment of retinal detachment so that they can act with greater safety in their daily practice.



“

*Obtain superior training in retinal detachment and be able to act with greater safety for patients with this pathology”*

Retinal detachment is the pathology par excellence in the surgery of retinal diseases. Its treatment is surgical in any of its varieties, so it is necessary that ophthalmology professionals acquire a deep knowledge in this type of interventions. In this program, all the possible techniques for the treatment of this disease are studied in depth, from the application of laser with its possibilities and characteristics, to scleral surgery and ending with vitrectomy.

Scleral surgery is less and less treated in the training programs of new specialists. However, its knowledge and the richness of its techniques make the difference between good and bad retinal surgeons. With this Postgraduate Certificate, the student will be able to delve into all the details concerning scleral surgery, as well as its possible intraoperative and postoperative complications and how they can be solved. In this way, accessory techniques such as pneumatic retinopexy, Lincoff's balloon and other techniques less used nowadays are detailed in detail, but which will give the student a greater richness when facing this pathology.

On the other hand, vitrectomy is the main surgical technique for the treatment of this disease and, therefore, in this Postgraduate Certificate the student will have a completely detailed training of all the steps and surgical tricks involved. Likewise, the different techniques that exist to deal with retinal detachments are discussed, depending on the number of breaks or the location of the different breaks that professionals may encounter. On the other hand, the surgical techniques for the treatment of vitreoretinal proliferation, one of the most complex points of vitreous and retinal surgery, are detailed.

The training program has a teaching staff specialized in ocular pathology and surgery, and that brings both their practical experience of their day to day in private practice, as well as their long experience of teaching at national and international level. In addition, it has the advantage of being a 100% online training, so the student can decide from where to study and at what time. This way, you will be able to flexibly self-direct your study hours.

This **Postgraduate Certificate in Comprehensive Retinal Detachment Treatment** contains the most complete and updated educational program on the market. The most important features of the program include:

- ◆ The development of clinical cases presented by experts in ocular pathology and surgery
- ◆ 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.
- ◆ The presentation of practical workshops on procedures and techniques.
- ◆ An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course.
- ◆ Action protocols and clinical practice guidelines, which cover the most important latest developments in this specialist area.
- ◆ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ◆ Special emphasis on test-based medicine and research methodologies.
- ◆ Content that is accessible from any fixed or portable device with an Internet connection



*This Postgraduate Certificate is the best option you can find to increase your knowledge in ocular disease and give a plus to your professional career"*

“

*This Postgraduate Certificate is the best investment you can make in a training to update your knowledge in age-related macular degeneration"*

It includes in its teaching staff a team of medical professionals, who bring to this training the experience of their work, in addition to recognized specialists belonging to scientific societies of reference.

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 an immersive training experience designed to train for real-life 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, you will have the help of an innovative interactive video system developed by renowned experts in age-related macular degeneration, with extensive teaching experience.

*This university 100% online course allow you to study from anywhere in the world. All you need is a computer or mobile device with an internet connection.*

*Our innovative teaching methodology will allow you to study as if you were dealing with real cases, and therefore increasing your training.*



# 02 Objectives

The Postgraduate Certificate in Comprehensive Treatment of Retinal Detachment is aimed at facilitating the performance of the professional dedicated to health with the latest advances and newest treatments in the sector.







“

*This training will create a sense of confidence in daily practice and help you to grow professionally"*



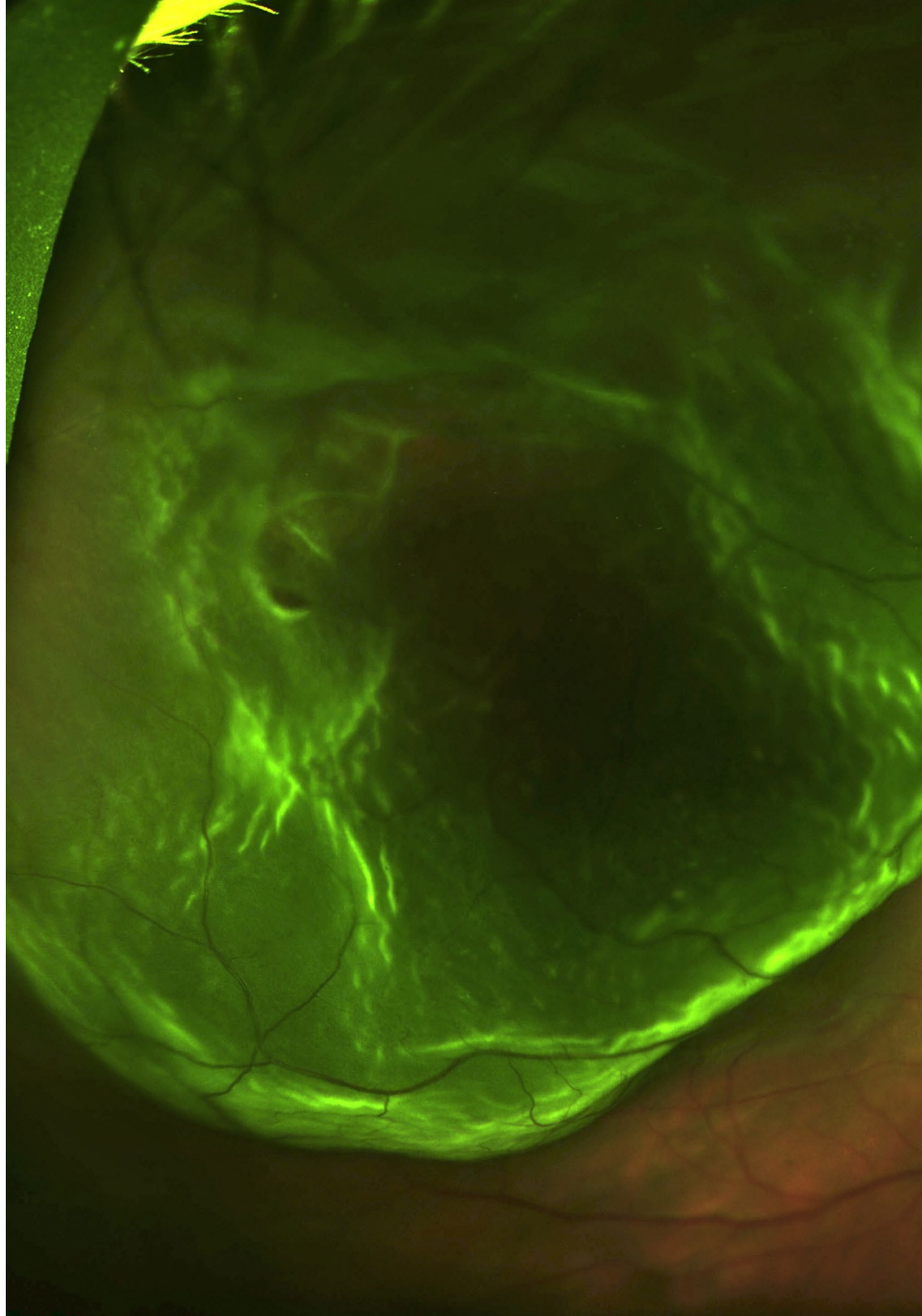
## General Objective

---

- ◆ Obtain a comprehensive and in-depth knowledge of all aspects of retinal detachment treatment.

“

*Our goal is to achieve academic excellence and to help you achieve it too"*





## Specific Objectives

---

- ◆ Know the basic and exploratory principles of retinal detachment.
- ◆ Learn the principles of surgery for the treatment of retinal detachment.
- ◆ Know how to perform scleral surgery applicable to retinal detachment.
- ◆ Learn the principles of surgery for the treatment of retinal detachment.
- ◆ Know the alternative methods for the treatment of retinal detachment.
- ◆ Learn about retinal detachment vitrectomy
- ◆ Know the complex techniques for the treatment of retinal detachment.
- ◆ Understand the complications of retinal detachment treatment.

03

# Course Management

The creation of the materials has been carried out by a team of leading professionals in ophthalmology, who perform their professional activity in the main hospitals in the country, transferring to the program the experience gained in their jobs throughout their careers.



“

*The best professionals in this area have joined forces to offer you the most specialised and up-to-date knowledge in the field"*

## International Guest Director

Dr. Gennady Landa is a leading vitreoretinal specialist, recognized for his skill in the surgical and medical treatment of a wide range of diseases affecting the back of the eye. In fact, his expertise encompasses conditions such as Macular Degeneration, Diabetic Retinopathy, Retinal Detachment and various Hereditary and Inflammatory Retinal Diseases. With a particular focus on macular, retinal and vitreous surgery, he has contributed to the advancement of treatments such as laser surgery, intraocular injections and vitrectomy techniques.

Throughout his career, he has played key roles in some of the most prestigious ophthalmological institutions in the United States. In this way, he has been Vice Chair of the Ophthalmology Clinic at Mount Sinai Hospital, as well as Director of the Retina Department at the New York Eye and Ear Hospital (NYEEL), one of the oldest and most renowned ophthalmology hospitals in the country. At the same center, he has also held the positions of Associate Director of the Vitreoretinal Fellowship and Medical Director of the Tribeca Office.

He has also been dedicated to exploring new ways of treatment and prevention of Age-Related Macular Degeneration and other Ocular Diseases. He has published more than 35 scientific articles in peer-reviewed journals and chapters in specialized books, contributing to the development of new retinal imaging techniques.

Internationally, he has been recognized for his contributions to Ophthalmology, receiving a prestigious Honor Award from the American Society of Retina Specialists. This recognition has underscored his leadership in the field of retina, both in clinical practice and research. Likewise, his participation in international congresses and scientific meetings has consolidated his reputation as a globally renowned expert.



## Dr. Landa, Gennady

---

- ♦ Vice Chair of the Ophthalmology Clinic at Mount Sinai Hospital, New York, United States
- ♦ Director of the Retina Service at the New York Eye and Ear Hospital (NYEEH)
- ♦ Associate Director of the Vitreoretinal Fellowship at the New York Eye and Ear Hospital (NYEEH)
- ♦ Medical Director of the Tribeca Office at New York Eye and Ear Hospital (NYEEH)
- ♦ Retina Specialist at the New York Eye and Ear Hospital (NYEEH)
- ♦ Doctor of Medicine from the Israel Technion Institute of Technology
- ♦ Honorary Award from the American Society of Retinal Specialists

“

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

## Management



### Dr. Armadá Maresca, Félix

- ♦ Head of Service, Ophthalmology Department, Hospital Universitario La Paz, Madrid.
- ♦ Doctor of Medicine. Autonomous University of Madrid
- ♦ Degree in Medicine. Alcalá de Henares University.
- ♦ Director of the Department of Ophthalmology at the San Francisco de Asís University Hospital in Madrid.
- ♦ Certified Ophthalmic Photographer, University of Wisconsin, Madison, USA
- ♦ The Chalfont Project, Chalfont St Giles, HP8 4XU United Kingdom. Year 2002
- ♦ ESADE - Course in Strategic Management of Clinical Services. 2011
- ♦ IESE - VISIONA course, clinical management in ophthalmology. 2020
- ♦ Lecturer in the Bachelor's Degree in Medicine at the University Alfonso X el sabio
- ♦ Lecturer in the Master "Expert in Health Management in Ophthalmology" of the Ministry of Health of the Community of Madrid. 2020
- ♦ Member of the Society of Ophthalmology of Madrid
- ♦ External Collaborator of Several Companies in the Medical Sector.



## Professors

### **Dr. Fernández– Vega Sanz, Álvaro**

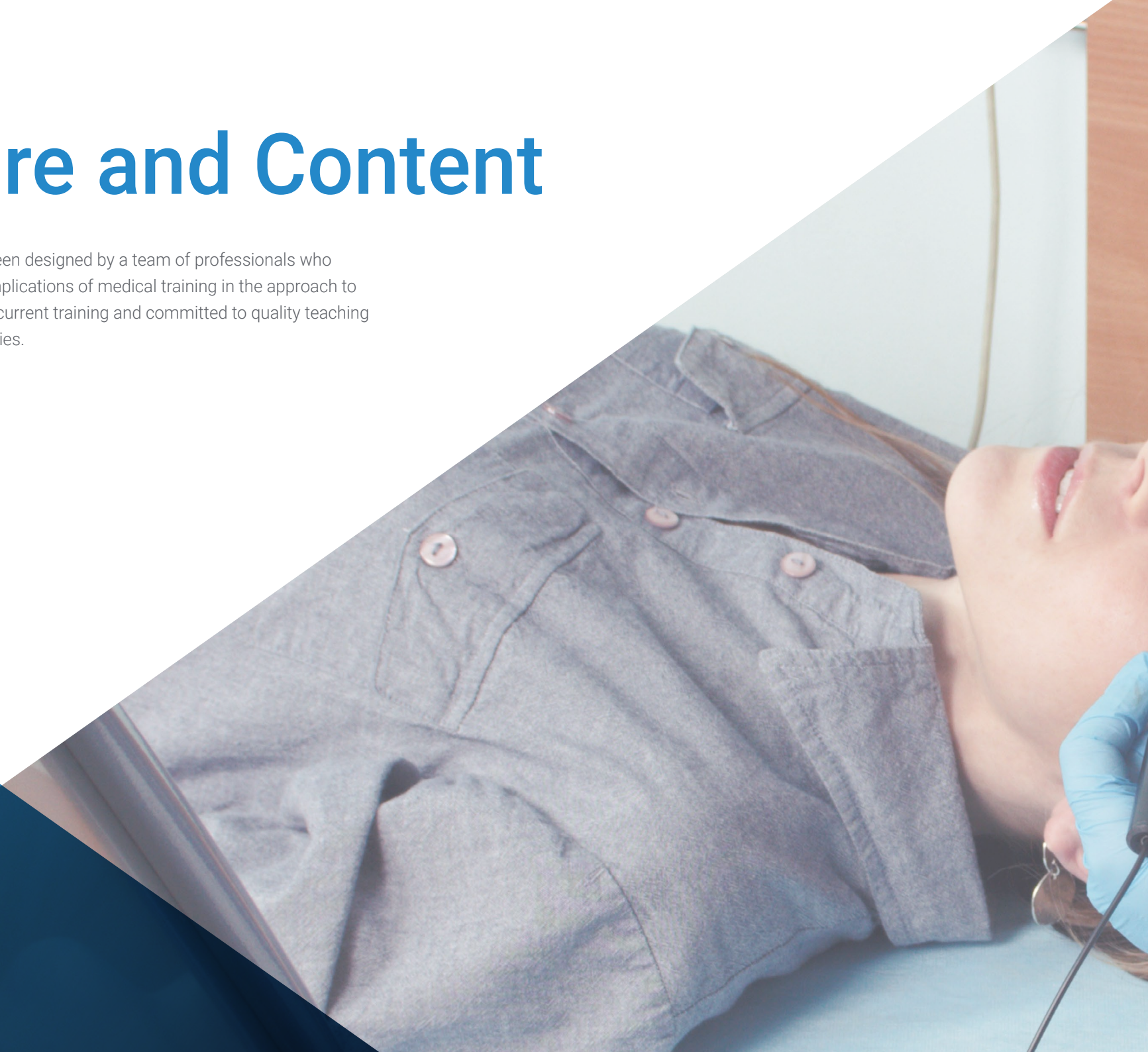
- ◆ Deputy Director of the Fernández-Vega Ophthalmological Institute
- ◆ Head of the Retina and Vitreous Area of the Fernández-Vega Ophthalmological Institute (from 1989 to date).
- ◆ Partner and owner of the Fernández-Vega Ophthalmological Institute, performing 300 to 350 retina/vitreous operations per year.
- ◆ Graduate in Medicine and Surgery from the Autonomous University of Madrid (1975-1982).
- ◆ Degree in Medicine and Surgery from the Autonomous University of Madrid. (July 1982)
- ◆ Medical Specialist in Ophthalmology (1986). Residency in Ophthalmology at the San Carlos Clinical Hospital in Madrid (1982-1986) through the M.I.R. exam.
- ◆ Member of the Spanish Society of Ophthalmology
- ◆ Member of the International Advisory Board of the International Schepens Society
- ◆ Founder and member of the Spanish Retina and Vitreous Society (SERV).



# 04

## Structure and Content

The structure of the syllabus has been designed by a team of professionals who are knowledgeable regarding the implications of medical training in the approach to patients, aware of the relevance of current training and committed to quality teaching through new educational technologies.





“

*This Postgraduate Diploma contains the most complete and up-to-date scientific program on the market”*

## Module 1. Comprehensive Treatment for Retinal Detachment.

- 1.1. Retinal Detachment
  - 1.1.1. Extraocular Anatomy and Physiology Adapted to Retinal Detachment Treatment
  - 1.1.2. Extraocular Anatomy and Physiology Adapted to Retinal Detachment Treatment
  - 1.1.3. Vitreous Liquefaction
  - 1.1.4. Posterior Vitreous Detachment
  - 1.1.5. Abnormal Vitreous-Retinal Adhesions
  - 1.1.6. Reticular Degeneration
  - 1.1.7. Asymptomatic Retinal Tears
  - 1.1.8. In-consultancy Examination of Retinal Detachment. Color Coding Dhen Drawing
  - 1.1.9. Lincoff's Laws. Methods for Locating Retinal Tears
- 1.2. Principles of Retinal Reapplication Surgery
  - 1.2.1. Physiological Factors That Maintain Retinal Detachment
  - 1.2.2. Factors That Induce Retinal Detachment
  - 1.2.3. History of Retinal Detachment Surgery, Contributions of Jules Gonin
  - 1.2.4. Evolution of Contemporary Surgical Techniques.
  - 1.2.5. Pre-operative Eye Examination
  - 1.2.6. Anesthesia in Retinal Detachment Surgery
  - 1.2.7. Methods for Creating a Chorioretinal Adhesion
- 1.3. Scleral Surgery for Retinal Detachment
  - 1.3.1. Materials for Scleral Indentation
  - 1.3.2. Preparation of the RD's Surgical Process in the Clinic
  - 1.3.3. Preparing the Surgical Field
  - 1.3.4. Examination of Retinal Detachment in the Operating Theatre. Location of Tears and Their Scleral Markings
  - 1.3.5. Sealing of Retinal Tears, Positioning of the Various Devices, Locks, Silicone Sponges, etc.
  - 1.3.6. Cryotherapy or Laser Around Ruptures, Surgical Technique
  - 1.3.7. Drainage and Control of Subretinal Fluid
  - 1.3.8. Scleral Cerclage Height Adjustment and Suturing of Intraocular Implants and Injections
  - 1.3.9. Closure and End of Surgery
  - 1.3.10. Medical Treatment Accompanying the Scleral Surgical Process



- 1.4. Alternative Methods of Treatment for Retinal Detachment
  - 1.4.1. Pneumatic Retinopexy
  - 1.4.2. Lincoff Balloon or Orbital or Episcleral Balloon
  - 1.4.3. Suprachoroidal Surgery, Suprachoroidal Indentation
  - 1.4.4. Liquid-air Exchanges in Consultation with Expanding Gases
  - 1.4.5. Nd:YAG Laser Vitreolysis
  - 1.4.6. Enzymatic Vitreolysis
- 1.5. Complicated Types of Retinal Detachment
  - 1.5.1. Total Retinal Detachments with Multiple Retinal Tears
  - 1.5.2. Retinal Detachments of Posterior Pole Retina Caused by Macular Holes
  - 1.5.3. Retinal Detachment Due To Giant Tears
  - 1.5.4. Proliferative Vitreoretinopathy
  - 1.5.5. Retinal Detachment Secondary to Uveitis and Retinitis
  - 1.5.6. Retinal Detachment Secondary to Choroidal Detachment
  - 1.5.7. Retinal Detachment Secondary to Retinal Coloboma
  - 1.5.8. Retinal Detachment Secondary to Morning Glory Syndrome
  - 1.5.9. Retinal Detachment Secondary to Retinoschisis
  - 1.5.10. Retinal Detachment Secondary to Anterior Pole Surgery
  - 1.5.11. Retinal Detachment with Major Corneal Opacity
  - 1.5.12. Retinal Detachment in the Myopic Patient
- 1.6. Vitrectomy for the Treatment of Retinal Detachment
  - 1.6.1. First Steps of Current and Past Vitrectomy
  - 1.6.2. Central and Peripheral Vitrectomy
  - 1.6.3. Use of Liquid Perfluorocarbon
  - 1.6.4. Surgical Techniques for Retinal Reapplication Depending on the Location of the Tear
  - 1.6.5. Endolaser
  - 1.6.6. Endocular Cryotherapy
  - 1.6.7. Endocular Diathermy
  - 1.6.8. Surgical Techniques of Intraocular Exchanges, Liquid– Air, Liquid– Oil, Liquid–Silicone Oil
  - 1.6.9. Removal of Silicone Oil From the Anterior Chamber, Posterior Pole. Extraction of Heavy Oils
  - 1.6.10. Control of Hemorrhage During Surgery
  - 1.6.11. Membrane Clearance in Proliferative Vitreoretinopathy (PVR)
  - 1.6.12. Anterior Retinectomy
  - 1.6.13. Posterior Relaxing Retinotomy
  - 1.6.14. Other Retinal Reapplication Techniques
  - 1.6.15. Post-surgical Postural Treatment
  - 1.6.16. Changes of pressures, airplane flights during the stay of expansible gases in the eye
  - 1.6.17. Expandable Gases and Anesthetic Gases
- 1.7. Complications of Retinal Detachment Surgery
  - 1.7.1. Complications Arising From Sclerotomies
  - 1.7.2. Retinal Incarceration at the Drainage Site in Scleral Surgery
  - 1.7.3. All Aspects of the Lens in Retinal Detachment Surgery
  - 1.7.4. Surgical Techniques for Mechanical Dilatation of the Pupil
  - 1.7.5. Intraoperative Complications of Retinal Detachment Surgery
  - 1.7.6. Perioperative Complications of Retinal Detachment Surgery
  - 1.7.7. Postoperative Complications of Retinal Detachment Surgery



*A unique, key, and decisive training experience to boost your professional development”*

05

# Methodology

This training program provides you with a different way of learning. Our methodology uses a cyclical learning approach: ***Re-learning***.

This teaching system is used 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.



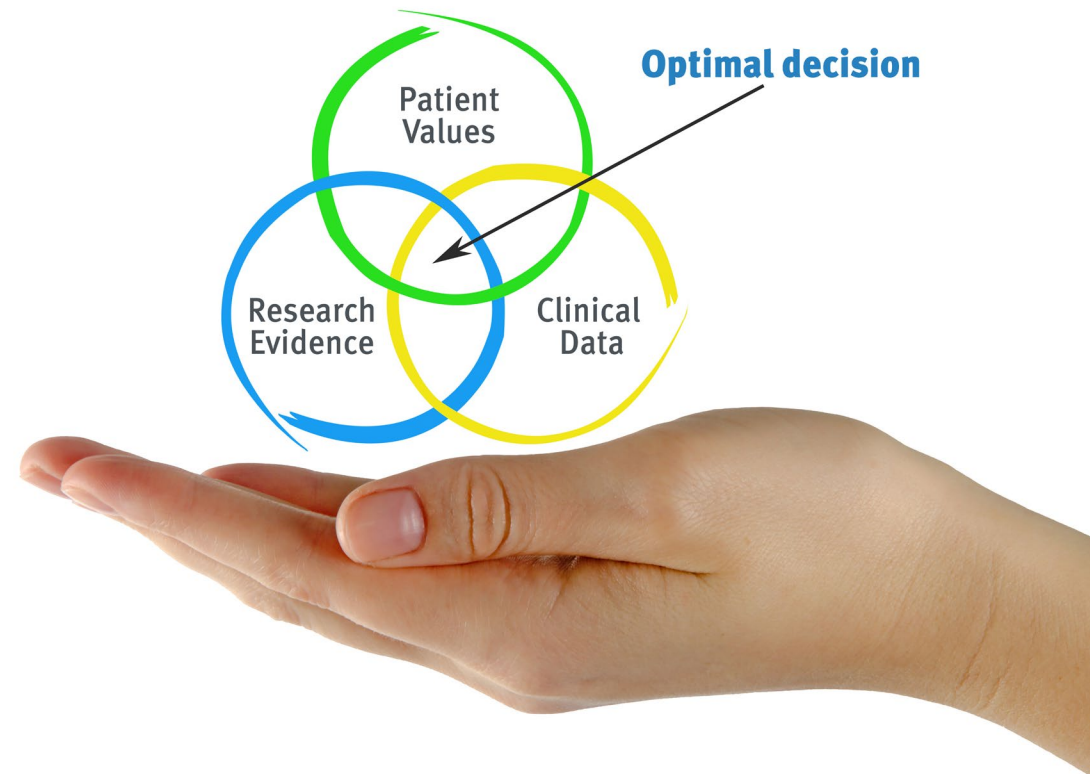
“

*Discover Re-learning, 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

In a given situation, what would you do? Throughout the program, you will be presented with multiple simulated clinical cases based on real patients, where you will have to investigate, establish hypotheses and, finally, resolve the situation. There is abundant scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

*With TECH you can 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 potential 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 professional medical practice.



“

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

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

1. Students who follow this method not only grasp concepts, but also develop their mental capacity by evaluating real situations and applying their knowledge.
2. The learning process has a clear focus on 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.



## Re-Learning Methodology

At TECH we enhance the Harvard case method with the best 100% online teaching methodology available: Re-learning.

Our 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, which represent a real revolution with respect to simply studying and analyzing cases.



*The physician will learn through real cases and by solving 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 Re-learning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best Spanish-speaking online university (Columbia University).

With this methodology we have trained more than 250,000 physicians with unprecedented success, in all clinical specialties regardless of the surgical load. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

*Re-learning 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 (we learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

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



In this program you will have access to the best educational material, prepared with you 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.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.



#### Latest Techniques and Procedures on Video

We introduce you to the latest techniques, to the latest educational advances, to the forefront of current medical techniques. All this, in first person, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many times as you want.



#### Interactive Summaries

We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".



#### Additional Reading

Recent articles, consensus documents, international guides. in our virtual library you will have access to everything you need to complete your training.





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

Effective learning ought to be contextual. Therefore, we will present you with real case developments in which the expert will guide you through focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



**Testing & Re-testing**

We periodically evaluate and re-evaluate your knowledge throughout the program, through assessment and self-assessment activities and exercises: so that you can see how you are achieving your goals.



**Classes**

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an expert strengthens knowledge and memory, and generates confidence in our future difficult decisions.



**Quick Action Guides**

We offer you the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help you progress in your learning.



# 06 Certificate

The **Postgraduate Certificate in Comprehensive Treatment of Retinal Detachment** guarantees you, in addition to the most rigorous and updated training, access to a Postgraduate Certificate issued by **TECH Technological University**.



“

*Successfully complete this training and receive your Postgraduate Certificate without the hassle of travel or laborious paperwork”*

This **Postgraduate Certificate in Comprehensive Retinal Detachment Treatment** contains the most complete and up-to-date scientific program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Certificate** issued by **TECH Technological University** via tracked delivery\*.

The 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 Comprehensive Treatment of Retinal Detachment**  
Official Number of Hours: **125**



\*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 Comprehensive Treatment of Retinal Detachment

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

# Postgraduate Certificate

## Comprehensive Treatment of Retinal Detachment