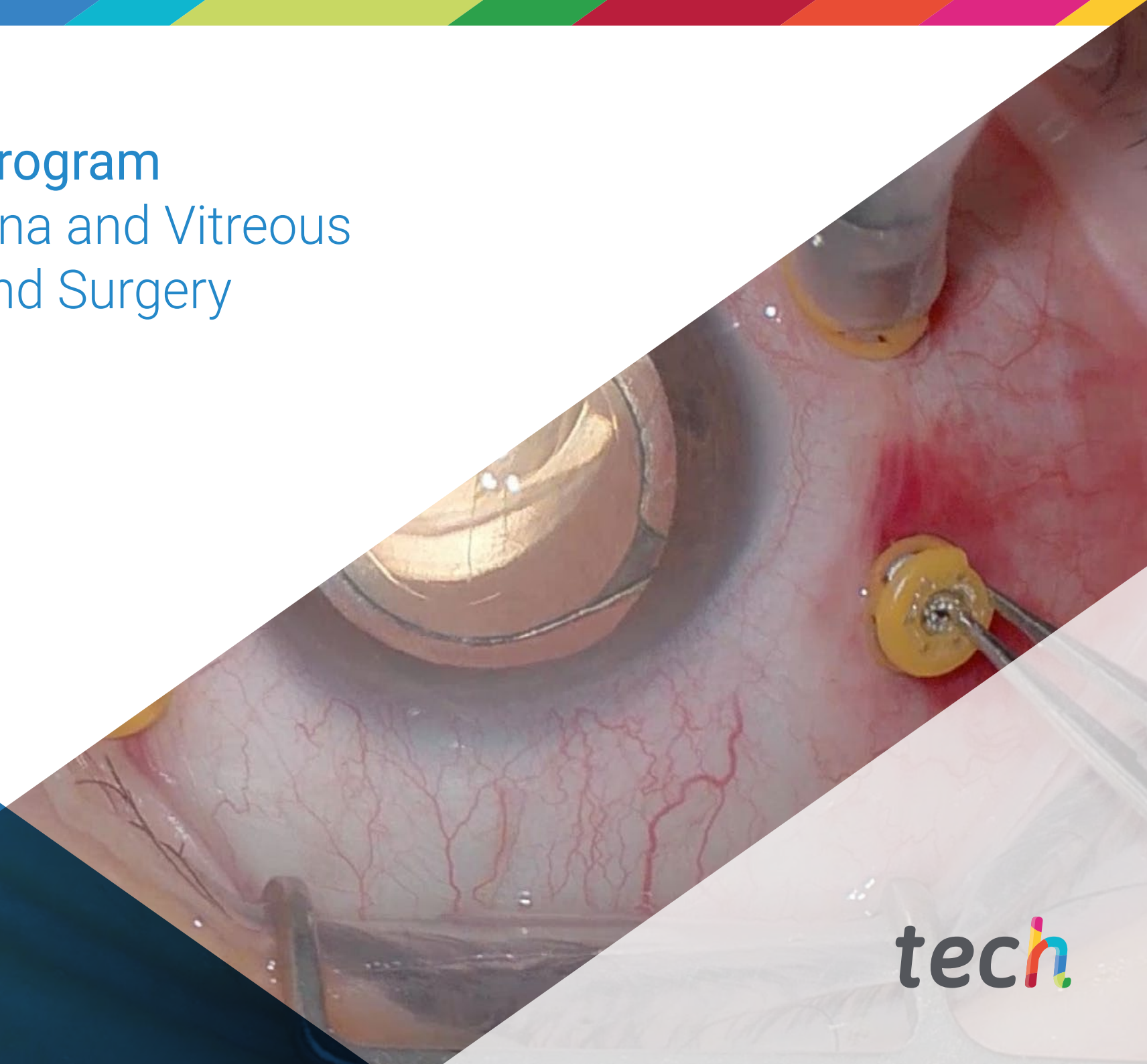


# Internship Program

## Macula, Retina and Vitreous Pathology and Surgery



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Internship Program  
Macula, Retina and Vitreous  
Pathology and Surgery

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# 01 Introduction

For several years, science and technology have been searching for better strategies to address pathologies in the posterior structures of the eye. Thanks to the evolution of this field of medicine, different surgical techniques and other procedures have emerged to facilitate the management of infectious, tumor or degenerative diseases of the vitreous, macula and retina. Keeping constantly updated on these aspects is not easy. For this reason, TECH is committed to an innovative academic modality in which the specialist will be updated on the main practical advances in this area of health. Thus, this program consists of a 3-week intensive on-site stay in a prestigious hospital center, under the expert guidance of top professionals.



*Upgrade your practical skills to identify and treat infectious and tumor pathologies in the structures of the back of the eye throughout this first-level Internship Program"*







Medical sciences are constantly innovating in the search for better visual quality for patients with affections in the structures of the back part of the eye. The macula, retina and vitreous are frequently affected by infectious pathologies, tumors, vascular origin and conditions due to the degeneration of the ocular apparatus with the patient's age. However, every day Ophthalmology provides new procedures to mitigate the impact of these conditions. Thus, at present, various surgical techniques and other highly effective therapeutic methodologies are being implemented. Paradoxically, most specialists are not prepared to implement all these new developments in their daily work.

To fill these gaps, TECH is committed to this Internship Program in Pathology and Surgery of the Macula, Retina and Vitreous. Through the program, the physician will acquire direct mastery of all recently implemented applications for this field of Ophthalmology. To do so, you will develop a 3-week immersive and intensive on-site stay in a prestigious hospital center. These entities, in addition to having the latest technological equipment, will open the doors to the physician to different criteria and work standards.

Likewise, the educational process will take place under the close guidance of an assistant tutor, who will be in charge of incorporating tasks of varying complexity to the clinical practice. In addition, it will verify the progress of the graduate and involve them in the discussion of strategies for the intervention of real cases. This period of on-site learning will also allow the ophthalmologist to work alongside great experts, thus acquiring the most sought-after experiences and enriching his or her working practice to the maximum.

# 02

## Why Study an Internship Program?

Nowadays, learning programs on Pathology and Surgery of the Macula, Retina and Vitreous do not provide the physician with the main practical aspects for the care of these structures of the back of the eye. For this reason, TECH has created a program based on the direct, face-to-face and immersive study of all the problems of this medical area. This 3-week academic modality facilitates contact with real cases, of varying complexity, under the supervision of leading experts in the field. In this way, the health professional will achieve updated competencies in the face of the convulsive therapeutic and surgical scenario.



*By enrolling in this program, you will have in your hand the most innovative treatments for the management of infectious diseases in Macula, Retina and Vitreous”*

### 1. Updating from the latest technology available

Throughout this program of studies, the specialist will handle modern technologies for the diagnosis of ocular pathologies, according to the patient's age and the presence of other comorbidities such as Diabetes. At the same time, you will examine the most innovative surgical tools that make more complex and innovative procedures possible every day.

### 2. Gaining In-Depth Knowledge from the Experience of Top Specialists

This Internship Program will provide the ophthalmologist with personalized guidance from a renowned healthcare team. Through these experts, the physician will develop state-of-the-art discharge for the management of serious diseases in the structures of the back of the eye. In addition, you will receive the advice and supervision of an adjunct tutor with a distinguished track record.

### 3. Entering First-Class Clinical Environments

TECH also facilitates physicians' access to prestigious and rigorous healthcare institutions. In these facilities, you will be able to handle the best equipment to perform visual tests and evaluate the condition of ocular structures such as the macula and the retina. In turn, you will work with distinguished experts who possess the most sought-after skills in the healthcare field.



#### **4. Putting the acquired knowledge into daily practice from the very first moment**

Although the academic market has educational programs focused on eye pathologies, none of them delve into how to apply different diagnostic and treatment techniques against these diseases in a practical way. This TECH program stands out from this context by offering a 100% practical and face-to-face training, where the professional will update their skills and will directly attend real cases with different conditions.

#### **5. Expanding the Boundaries of Knowledge**

TECH, as the largest digital academic institution of the moment, dedicates special attention to the training of its graduates in a practical and comprehensive way. For this reason, it has developed this academic modality that favors the access of professionals to international centers where they will update their skills in the management of various pathologies of the macula, retina and vitreous.



*You will have full practical immersion at the center of your choice"*



# 03 Objectives

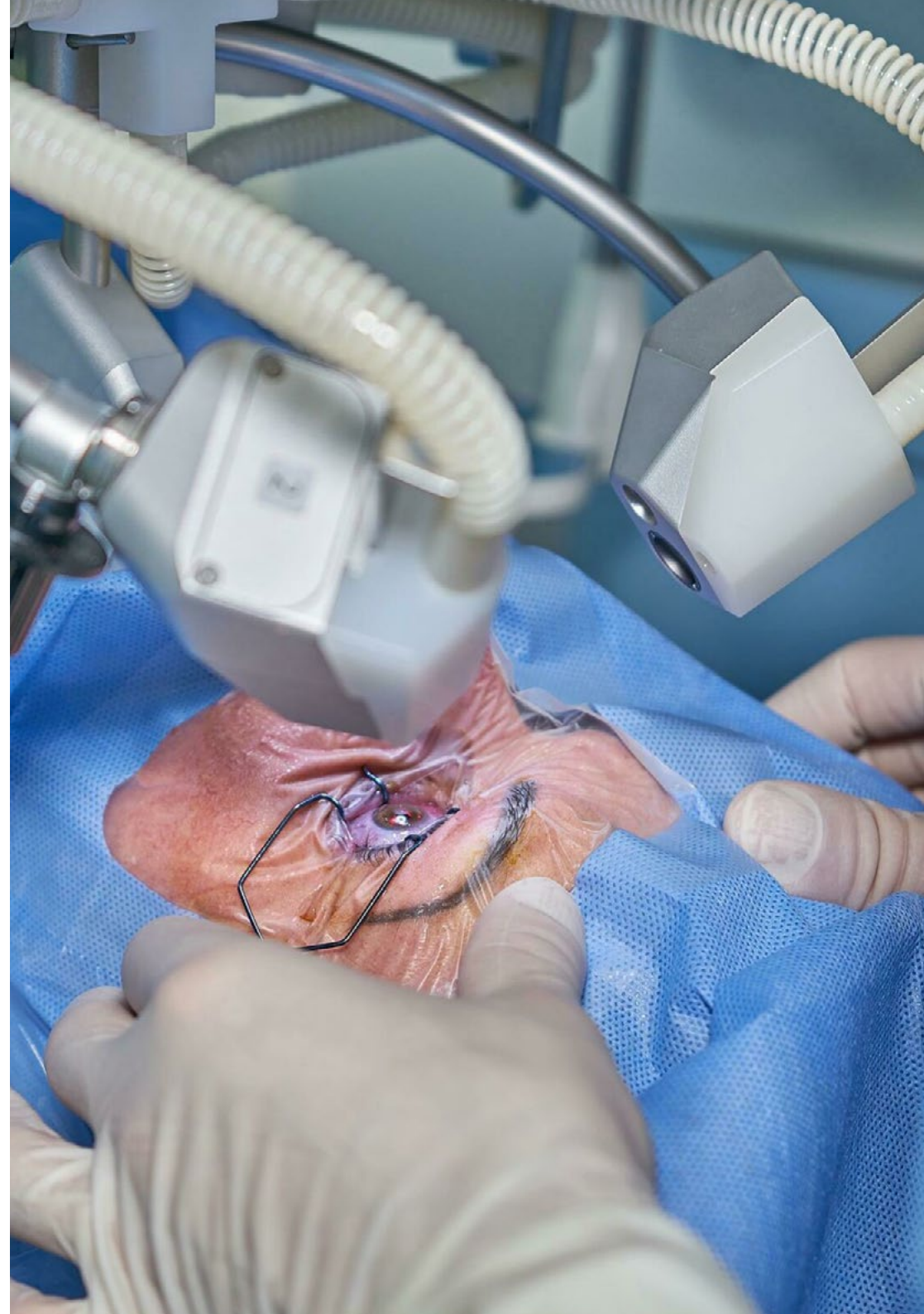
This Internship Program in Pathology and Surgery of the Macula, Retina and Vitreous delves into the latest trends in this area of ocular medicine. Through an innovative and 100% face-to-face learning modality, the physician will add new competencies to his or her professional practice in a more intensive and immersive way. By completing the 3 weeks of this program, you will be able to offer your patients the most rigorous and excellent care.



## General Objectives

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- Delve into the anatomy and physiology of the retina, macula and vitreous
- Have a thorough understanding of the physiology of color vision and its functional tests
- Master the latest exploratory techniques such as angiography or OCT, for their application in the clinic
- Manage the full breadth and depth of diabetic retinopathy and its possible treatments







## Specific Objectives

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- ♦ Inquire about branch vein and central retinal vein thrombosis and their possible treatments
  - ♦ To broaden knowledge of central retinal artery embolism and its treatment
  - ♦ Delve into Macroaneurysms, macular telangiectasias, their differential diagnosis and possible treatments
  - ♦ Delve into the knowledge of other retinal vascular pathologies and diseases affecting the pigment epithelium of the macula, Bruch's membrane and choroid and pachychoroid
  - ♦ Know radiation maculopathy, siderosis and chalcosis
  - ♦ Manage alterations of the macula due to light stress, and other alterations, such as pigment epithelium detachments or angiod streaks
  - ♦ Master the pachychoroid diseases and inflammatory pathologies of the retina, macula and vitreous
  - ♦ Analyze diagnostic tests for uveitis, treatment of cystoid macular edema and other inflammatory diseases of the macula
  - ♦ Recognize autoimmune retinopathies and masquerade syndromes
  - ♦ Acquire a broad and in-depth knowledge of infectious diseases of the retina, macula and vitreous
  - ♦ Comprehensive investigation of inherited retinal dystrophies
  - ♦ Examine in-depth knowledge of the pathology of the retina, macula and vitreous in the pediatric age
  - ♦ Comprehensive assessment of all aspects of age-related macular degeneration
  - ♦ Broaden knowledge of the full extent of retinal, choroidal and vitreous tumor pathology
  - ♦ Master retina, macula and vitreous surgery
- ♦ Deepen your understanding of vitrectomies associated with complications of anterior pole surgeries
  - ♦ Obtain detailed knowledge of surgery in diabetic patients, as well as surgical techniques applicable to endophthalmitis and virus retinitis
  - ♦ Learn all about surgery for myopia, the most common diseases of the macula and ocular trauma



*Don't miss the opportunity to enroll with TECH and learn to diagnose directly, in situ, and with real patients, the most complex and latency diseases and disorders in the structures of the back of the eye"*

# 04

## Educational Plan

This learning experience will last for 3 weeks. Throughout this period, the physician will delve in a practical, face-to-face and immersive way into the main novelties in relation to the therapeutic and surgical approach to the macula, retina and vitreous. In this modality of studies, TECH provides direct access to real patients, under the supervision of experts with a distinguished track record. Thanks to them, the medical professional, enrolled in the program, will handle high technology and implement modern therapies.

In this completely practical Internship Program, the activities are aimed at developing and perfecting the skills necessary to provide healthcare care in areas and conditions that require highly qualified professionals, and are oriented towards specific expertise for practicing the activity, in a safe environment for the patient and with highly professional performance.

The learning days will take place from Monday to Friday until completing 120 educational hours. Throughout the Internship Program, the physician will also have an assistant tutor who will supervise their progress and will introduce them to the work dynamics of a practice or surgical unit specialized in pathologies of the macula, retina and vitreous.

The practical teaching will be carried out with the active participation of the student performing the activities and procedures of each area of competence (learning to learn and learning to do), with the accompaniment and guidance of the professors and other fellow trainees that facilitate teamwork and multidisciplinary integration as transversal competencies for medical practice (learning to be and learning to relate).

The procedures described below will form the basis of the practical part of the training, and their completion is subject to both the suitability of the patients and the availability of the center and its workload, with the proposed activities being as follows:



*Receive specialized education in an institution that can offer you all these possibilities, with an innovative academic program and a human team that will help you develop your full potential”*



Module	Practical Activity
<b>New technologies in the diagnosis of pathology of Macula, Retina and Vitreous</b>	Perform angiography of the eye circulation by means of Optical Coherence Tomography
	Obtain detailed information on the emergence and evolution of retinal diseases such as age-related macular degeneration by means of autofluorescence imaging
	To study the vascularization of the eye through contrast angiography
	More detailed and accurate fundus photography with the Clarus 500 Retinograph, which does not require dilation of the patient's pupil
	Use an Amsler grid to examine the clarity of the patient's central vision
	Isolation of mycotic microorganisms for diagnosis by vitreous biopsy
<b>Non-invasive trends in the treatment of infectious pathologies in the macula, retina and vitreous.</b>	Differential diagnosis and correct treatment of all common and less common ocular diseases
	Treat fungal infections of the eye, such as endogenous endophthalmitis, with amphotericin B
	Prescribe oral drug therapy for patients with persistent fungal infections
<b>Latest surgical techniques for Macula, Retina and Vitreous</b>	Intravitreally administer specific medications that prevent wet macular degeneration, diabetic retinopathy or rupture of blood vessels within the eye with an ocular injection
	Use new techniques in vitrectomy: pumps, illumination, visualization systems
	Applying surgery in diabetic retinopathy: from vitreous hemorrhage to tractional RD
	Repair holes or tears in the retina by laser surgery
	Reducing abnormal blood vessels using photocoagulation technique
	Implement Cryopexy by applying a very cold probe to the outer wall of the eye to treat a retinal tear
	To master the advances in Oculoplastics in order to incorporate them into routine medical practice
<b>Management of pediatric patients with macular, retinal and vitreous pathologies.</b>	Perform complete vision examinations of the pediatric patient
	Early implantation of a retinal prosthesis for detachments of this eye structure in pediatric age
	Preventing Retinal Disease in Childhood Patients with Marfan Syndrome through Specific Follow-up Strategies
	Joining the lining of the back of the eye to preserve the vision of the pediatric patient with familial exudative vitreoretinopathy
	Monitor the patient's health conditions and know how diseases such as diabetes or hypertension have a direct impact on vision



# 05 Where Can I Do the Internship Program?

Through this academic program, the physician will have the opportunity to study in hospital institutions located in different cities and countries around the world. This unique learning opportunity is offered by TECH for its graduates to achieve a comprehensive mastery of international standards in pathology and surgery of the structures of the back of the eye. In addition, all the locations selected for this educational modality have accredited technologies and qualified experts from whom the student will get the most out of.



*Enroll in TECH and you will put into practice the most modern surgical procedures in eye surgery”*





The student will be able to do this program at the following centers:



Medicine

### Hospital HM Modelo

Country: Spain  
City: La Coruña

Address: Rúa Virrey Osorio, 30, 15011, A Coruña

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Anaesthesiology and Resuscitation
- Palliative Care



Medicine

### Hospital HM Rosaleda

Country: Spain  
City: La Coruña

Address: Rúa de Santiago León de Caracas, 1, 15701, Santiago de Compostela, A Coruña

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Hair Transplantation
- Orthodontics and Dentofacial Orthopedics



Medicine

### Hospital HM La Esperanza

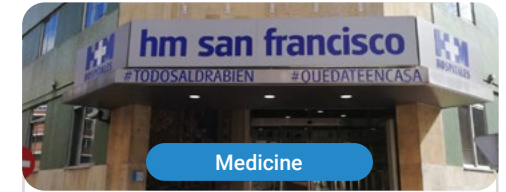
Country: Spain  
City: La Coruña

Address: Av. das Burgas, 2, 15705, Santiago de Compostela, A Coruña

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Oncology Nursing
- Clinical Ophthalmology



Medicine

### Hospital HM San Francisco

Country: Spain  
City: León

Address: C. Marqueses de San Isidro, 11, 24004, León

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Update in Anesthesiology and Resuscitation
- Trauma Nursing



Medicine

### Hospital HM Nou Delfos

Country: Spain  
City: Barcelona

Address: Avinguda de Vallcarca, 151, 08023 Barcelona

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Aesthetic Medicine
- Clinical Nutrition in Medicine



Medicine

### Hospital HM Madrid

Country: Spain  
City: Madrid

Address: Pl. del Conde del Valle de Súchil, 16, 28015, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Palliative Care
- Anaesthesiology and Resuscitation



Medicine

### Hospital HM Montepíncipe

Country: Spain  
City: Madrid

Address: Av. de Montepíncipe, 25, 28660, Boadilla del Monte, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Palliative Care
- Aesthetic Medicine



Medicine

### Hospital HM Torrelodones

Country: Spain  
City: Madrid

Address: Av. Castillo Olivares, s/n, 28250, Torrelodones, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Anaesthesiology and Resuscitation
- Palliative Care





Medicine

### Hospital HM Sanchinarro

Country	City
Spain	Madrid

Address: Calle de Oña, 10, 28050, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Anaesthesiology and Resuscitation
- Palliative Care



Medicine

### Hospital HM Puerta del Sur

Country	City
Spain	Madrid

Address: Av. Carlos V, 70, 28938, Móstoles, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Palliative Care
- Clinical Ophthalmology



Medicine

### Hospital HM Vallés

Country	City
Spain	Madrid

Address: Calle Santiago, 14, 28801, Alcalá de Henares, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Gynecologic Oncology
- Clinical Ophthalmology



Medicine

### Policlínico HM Cruz Verde

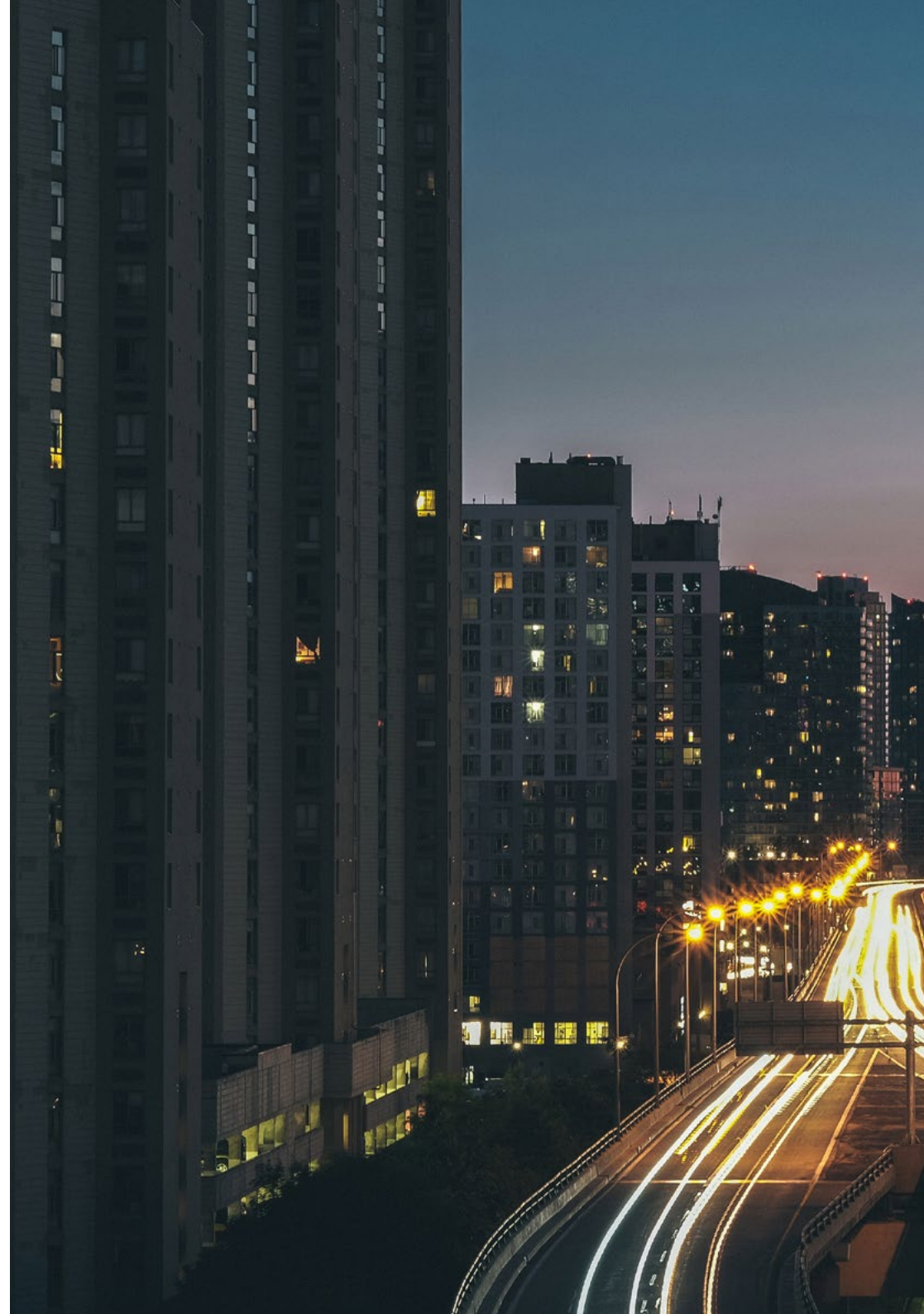
Country	City
Spain	Madrid

Address: Plaza de la Cruz Verde, 1-3, 28807, Alcalá de Henares, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Advanced Clinical Podiatry
- Optical Technologies and Clinical Optometry







Medicine

### Policlínico HM Distrito Telefónica

Country	City
Spain	Madrid

Address: Ronda de la Comunicación,  
28050, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Optical Technologies and Clinical Optometry
- General and Digestive System Surgery



Medicine

### Policlínico HM Gabinete Velázquez

Country	City
Spain	Madrid

Address: C. de Jorge Juan, 19, 1º 28001,  
28001, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Clinical Nutrition in Medicine
- Aesthetic Plastic Surgery



Medicine

### Policlínico HM Moraleja

Country	City
Spain	Madrid

Address: P.º de Alcobendas, 10, 28109,  
Alcobendas, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Rehabilitation Medicine in Acquired Brain Injury Management



Medicine

### Policlínico HM Rosaleda Lalín

Country	City
Spain	Pontevedra

Address: Av. Buenos Aires, 102, 36500,  
Lalín, Pontevedra

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

**Related internship programs:**

- Advances in Hematology and Hemotherapy
- Neurological Physiotherapy



# 06

## General Conditions

### Civil Liability Insurance

This institution's main concern is to guarantee the safety of the trainees and other collaborating agents involved in the internship process at the company. Among the measures dedicated to achieve this is the response to any incident that may occur during the entire teaching-learning process.

To this end, this educational entity undertakes to take out civil liability insurance to cover any eventuality that may arise during the stay at the internship center.

This liability policy for interns will have broad coverage and will be taken out prior to the start of the practical training period. That way professionals will not have to worry in case of having to face an unexpected situation and will be covered until the end of the internship program at the center.



## General Conditions of the Internship Program

The general terms and conditions of the internship agreement for the program are as follows:

**1. TUTOR:** During the Internship Program, students will be assigned with two tutors who will accompany them throughout the process, answering any doubts and questions that may arise. On the one hand, there will be a professional tutor belonging to the internship center who will have the purpose of guiding and supporting the student at all times. On the other hand, they will also be assigned with an academic tutor, whose mission will be to coordinate and help the students during the whole process, solving doubts and facilitating everything they may need. In this way, the student will be accompanied and will be able to discuss any doubts that may arise, both clinical and academic.

**2. DURATION:** The internship program will have a duration of three continuous weeks, in 8-hour days, 5 days a week. The days of attendance and the schedule will be the responsibility of the center and the professional will be informed well in advance so that they can make the appropriate arrangements.

**3. ABSENCE:** If the students does not show up on the start date of the Internship Program, they will lose the right to it, without the possibility of reimbursement or change of dates. Absence for more than two days from the internship, without justification or a medical reason, will result in the professional's withdrawal from the internship, therefore, automatic termination of the internship. Any problems that may arise during the course of the internship must be urgently reported to the academic tutor.

**4. CERTIFICATION:** Professionals who pass the Internship Program will receive a certificate accrediting their stay at the center.

**5. EMPLOYMENT RELATIONSHIP:** The Internship Program shall not constitute an employment relationship of any kind.

**6. PRIOR EDUCATION:** Some centers may require a certificate of prior education for the Internship Program. In these cases, it will be necessary to submit it to the TECH internship department so that the assignment of the chosen center can be confirmed.

**7. DOES NOT INCLUDE:** The Internship Program will not include any element not described in the present conditions. Therefore, it does not include accommodation, transportation to the city where the internship takes place, visas or any other items not listed

However, students may consult with their academic tutor for any questions or recommendations in this regard. The academic tutor will provide the student with all the necessary information to facilitate the procedures in any case.



# 07 Certificate

This **Internship Program in Macula, Retina and Vitreous Pathology and Surgery** contains the most complete and up-to-date program in the professional and academic landscape.

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

The diploma issued by TECH will reflect the grade obtained in the test.

Title: **Internship Program in Macula, Retina and Vitreous Pathology and Surgery**

Duration: **3 weeks**

Attendance: **Monday to Friday, shifts of 8 consecutive hours**

Total Hours: **120 h. of professional practice**

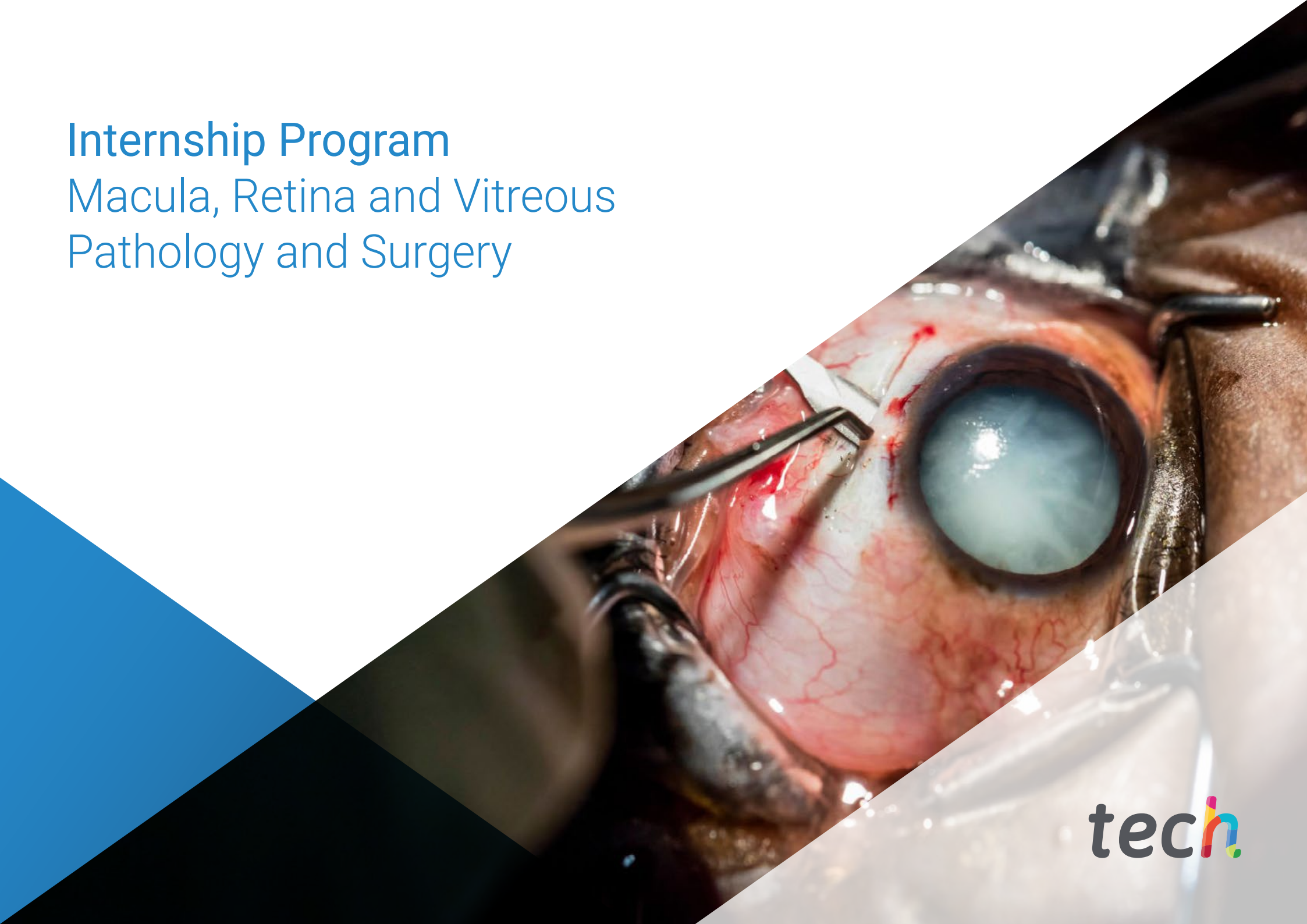


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Macula, Retina and Vitreous  
Pathology and Surgery

# Internship Program

## Macula, Retina and Vitreous Pathology and Surgery



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