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# 01 Introduction

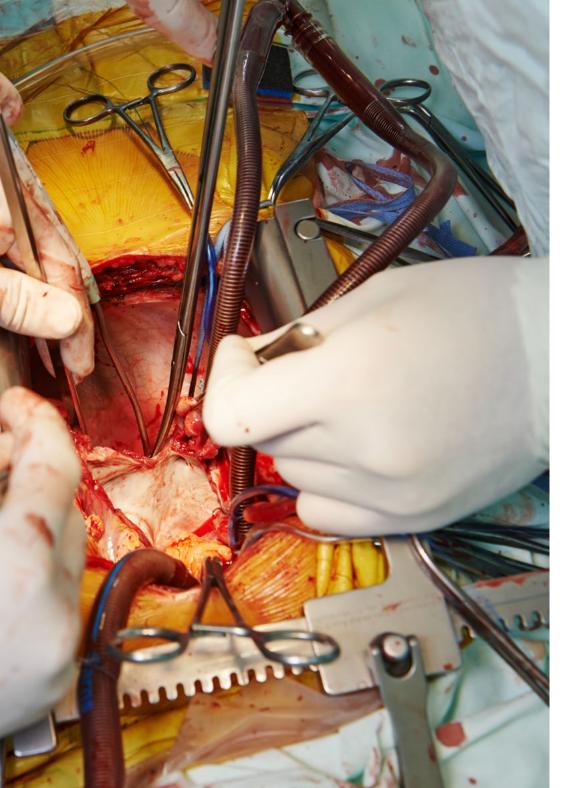
Being a recent subspecialty, Oncological Cardiology has one of the most favorable fields of action within the clinical field. The continuous advances in radiotherapy and oncology treatments must be accompanied by necessary follow-up at a cardiological level, since the possible Cardiotoxicity that can arise from such treatments must have a rapid and prompt response. For this reason, TECH has created this completely practical qualification, so that the specialist can get involved in a top-level team in the area of Oncological Cardiology. This academic experience will allow you to update your own protocols and methods of action based on the most recent scientific evidence.

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Get involved with a high-level clinical team in the most advanced Cardiology Oncology processes"



### Cardio-Oncology | 05 tech



Cardiologists, oncologists, hematologists and other specialists in related areas have seen how in recent years the need to create a Unit has gained importance.of Cardio-Oncology. This need is given, as it could not be otherwise, by the multiple cardiovascular complications that occur in patients undergoing oncologic treatment.

This drives, precisely, a constant update in the approach, surveillance and treatment of conditions such as Cardiotoxicity derived from oncologic therapies, among other complications. TECH, based on this perspective in which Cardio-Oncology will be increasingly important in the future, has created this Practical Training.

In it, the specialist will be involved for 3 weeks in a multidisciplinary team of this medical area, with the most advanced clinical equipment and apparatus. In this way, you will put into practice the most up-to-date techniques and approaches, caring for real patients and following up on cases of varying complexity, acquiring distinctive and unique practical knowledge in the clinical field.



Enjoy an intensive 3-week stay in a reputable center and get up to date on the latest clinical procedures to achieve professional growth"

# 02 Why Study an Internship Program?

Clinical experience is essential in the continuous updating process of all medical specialists. Therefore, this degree represents an important step to incorporate the most effective techniques and approaches currently in the student's own daily work, taking into account the most recent news in patients with Cardiotoxicity and cardiological pathologies related to the area of Oncology.

Incorporate into your daily practice the most recent advances in Cardio-Oncology, acquired in a first-class clinical environment"

#### 1. Updating from the latest technology available

Technology is one of the fundamental pillars on which the vast majority of clinical advances are based. In the case of Cardio-Oncology it is the advances in radiotherapy and chemotherapy drugs that have allowed a more effective approach to oncological pathologies, so the possible cardiac complications derived from them should not be neglected. Moreover, during the Internship Program the specialist will have access to the most advanced diagnoses and treatments of this field.

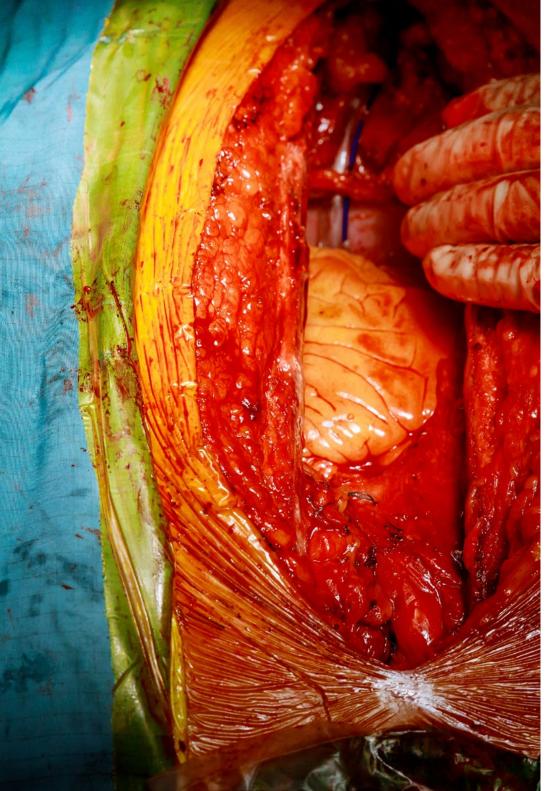
#### 2. Gaining In-Depth Knowledge from the Experience of Top Specialists

The Cardio-Oncology teams, given their very nature, are made up of specialists from various hospital areas. This makes them high-level units with extensive accumulated experience, from which you will undoubtedly benefit the student who decides to undertake this Internship Program

#### 3. Entering First-Class Clinical Environments

All centers included in this Internship Program meet the most advanced quality and clinical care standards. In this way, the student is guaranteed an academic experience that has an impact on their own updating work, being part of their daily life in the evaluation and approach of patients with different cardiac pathologies.





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

Thanks to TECH's pedagogical methodology, which offers an intensive and dynamic experience, all protocols and approaches on Cardio-Oncology can be applied to one's daily practice from the first moment. This will also be reinforced by the support of a work team committed to the student himself.

#### 5. Expanding the Boundaries of Knowledge

TECH offers the possibility of doing this Internship Program, not only in national, but also in international centers. This way, the specialist will be able to expand their frontiers and catch up with the best professionals, who practice in first class centers and in different continents. A unique opportunity that only TECH, the largest online university in the world, could offer.

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

# 03 **Objectives**

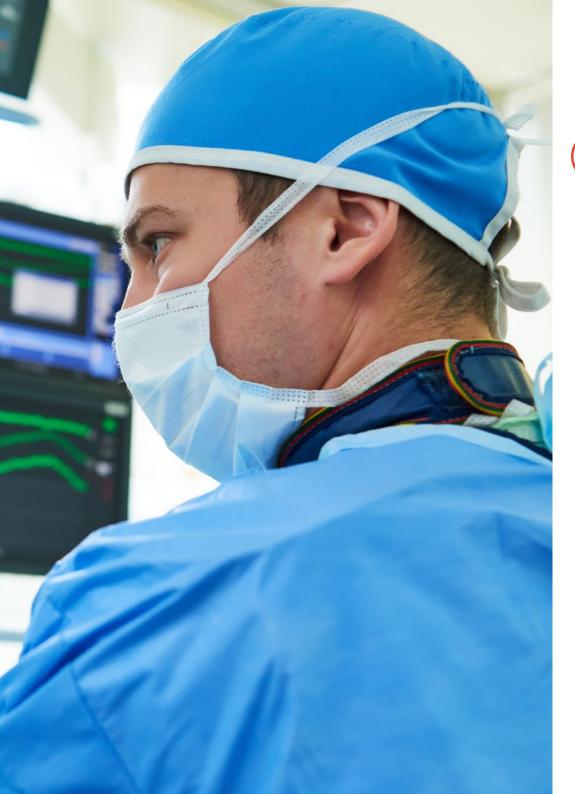
This Internship Program has the main objective of promoting the updating of the specialist in the area of Cardio-Oncology. This is achieved thanks to a natural and dynamic integration into a highly active work team, being part of the most relevant tasks of the Cardio-Oncology Unit from day one. So, the student will more than meet his or her most demanding professional updating goals.



### **General Objectives**

- Update Cardiologists', Oncologists', and Hematologists' knowledge in the field of Cardio-Oncology
- Promote work strategies based on a comprehensive approach to the patient as a standard model for achieving excellent care
- Encourage the acquisition of technical skills and abilities, through a powerful audiovisual system, and the possibility of development through online simulation workshops and/or specific education
- Encourage professional stimulation through continuous education and research







### Specific Objectives

- Incorporate early detection methods for cardiac toxicity in each clinical context
- Identify the potential toxic effects of oncological treatments at the valvular and pericardial levels
- Incorporate knowledge of the relationship of cardiotoxic therapies to the genesis of ischemic cardiopatias disease
- Point out the implications on the oncologic treatment of arterial hypertension
- Incorporate the latest advances in basic and clinical research in the context of cardiac toxicity
- Determine the potential role that radiotherapy, immunotherapy, and chemotherapy treatments may play in causing CT
- Become familiar with the follow-up required in patients with cardiac toxicity or at high risk of developing it
- Get up to date on anticoagulant and antiplatelet therapy in oncology patients
- Identify other pharmacological treatments with a possible cardioprotective effect

# 04 Educational Plan

This Internship Program consists of a 3-week stay in a highly prestigious clinical center. This allows the specialist to get involved in the most advanced processes of the Cardio-Oncology Unit, while performing various functions with which to perfect their own skills in the most relevant areas of the specialty.

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 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 teachers and other training partners that facilitate teamwork and multidisciplinary integration as transversal competencies for Oncological Cardiology (learning to be and learning to relate).

The procedures described below will form the basis of the practical part of the training, and their implementation 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:





Module	Practical Activity
Early diagnosis of possible cardiological complications	Analyze the effects of radiotherapy, chemotherapy and biological agents as possible causes of Cardiotoxicity in real patients
	Evaluate patients based on genetic and nongenetic factors with those who may be susceptible to Cardiotoxicity
	Perform a Monitoring and Clinical Assessment of Patients Subjected to Cardiotoxic Treatments
	Use echocardiography, cardiac magnetic resonance and computed axial tomography in early detection of cardiotoxicity
Protocols	Study and evaluate Geriatric Patients in need of Oncologic Treatment
	Evaluate the approach to follow with oncology patients who present arrhythmias or have pacemakers
of vigilance	Detect possible cases of Late Radioinduced Toxicity or Late Cardiotoxicity
in cancer patients	Schedule close monitoring of patients on oncological drugs or in thoracic radiotherapy treatments that may cause possible Cardiotoxicity
	Intervene through therapies with a cardioprotective effect
Coordination and response in the Unit of Cardio-Oncology	Quickly evaluate the initiation of oncological treatment, whether surgical or adjuvant
	Be part of the coordination between multidisciplinary teams in the area of Cardio-Oncology
	Be a participant in the evaluation, monitoring and possible referral processes of patients with cardiological pathologies from other medical areas
	Jointly schedule cardiological and oncological treatments that allow to the patient prevent cardiovascular damage
Management of cardiovascular pathologies	Treat cases of venous thromboembolic disease in cancer patients
	Establish prevention strategies in hospitalized patients with active oncological treatments
	Manage patients with mitral or aortic valve disease undergoing oncological treatment
in cancer patients	Assess Patients with Metastatic Pericardial Involvement
	Address chronic ischemic patients receiving cancer treatment

# 05 Where Can I Do the Internship Program?

The centers chosen for this Internship Program have the highest level Cardio-Oncology team, also integrating the most experienced specialists in this currently relevant clinical area. Moreover, a unique and enriching practical experience is guaranteed for the students, as they will be guided at all times both by a designated tutor as well as by the entire work team in which he will be involved.

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Update your own protocols for monitoring and early detection of cardiac pathologies related to pharmacological and radiotherapy oncologic treatments"



### Cardio-Oncology | 13 tech

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

City

La Coruña



#### **Hospital HM Modelo**

Country Spain

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



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



#### Hospital HM La Esperanza

Country

Spain

La Coruña

City

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



#### Hospital HM San Francisco

Country	City
Spain	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



#### **Hospital HM Nou Delfos**

Country	City
Spain	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



Country	City
Spain	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



#### Hospital HM Montepríncipe

Country	City
Spain	Madrid

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

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

> Related internship programs: - Palliative Care Aesthetic Medicine



#### **Hospital HM Torrelodones**

Country	City
Spain	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

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Hospital HM Sanchinarro Country City

Madrid

Address: Calle de Oña, 10, 28050, Madrid

Spain

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

Related internship programs: - Anaesthesiology and Resuscitation - Palliative Care



Hospital HM Nuevo Belén

Country

Spain

Country

Spain

City Madrid

Address: Calle José Silva, 7, 28043, Madrid

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

Related internship programs: - General and Digestive System Surgery - Clinical Nutrition in 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



#### Hospital HM Vallés

City
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



### Cardio-Oncology | 15 tech



## HM CIOCC - Centro Integral Oncológico Clara Campal

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: - Gynecologic Oncology - Clinical Ophthalmology



#### **HM CIOCC Barcelona**

Country Spain

City Barcelona

Address: Avenida de Vallcarca, 151, 08023, Barcelona

Network of private clinics, hospitals and specialized centers distributed. The Spanish Geography

> Related internship programs: - Advances in Hematology and Hemotherapy Oncology Nursing



#### HM CIOCC Galicia

Country Spain La Coruña

Address: Avenida das Burgas, 2, 15705, Santiago de Compostela

City

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

> Related internship programs: - Gynecologic Oncology - Clinical Ophthalmology



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## 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.

For this purpose, this entity commits to purchasing a civil liability insurance policy to cover any eventuality that may arise during the course of the internship at the 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 Cardio-Oncology** contains the most complete and up-todate 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 certificate issued by TECH will reflect the grade obtained in the test.

Title: Internship Program in Cardio-Oncology Duration: **3 weeks** Course Modality: Monday to Friday, 8-hour consecutive shifts Total Hours: **120 h. of professional practice** 





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