





Internship Program Nuclear Medicine

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## 01 Introduction

Scientific advances have led to a remarkable development in the diagnostic methods of Nuclear Medicine in recent times, allowing the detection of tumors or cardiac and gastrointestinal diseases with greater accuracy than that offered by other technologies. For this reason, more and more physicians are choosing to expand their skills in this area in order to offer high quality care to each of their patients. Therefore, TECH has promoted this 100% practical and intensive program, through which the professional will update their knowledge in the diagnosis of neuroendocrine tumors or cardiac pathologies through Nuclear Medicine in a clinical center of recognized prestige.

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Update your knowledge in the high quality diagnostic image monitoring of patients suffering from different types of oncological tumors thanks to this Internship Program"





In recent years, Nuclear Medicine has undergone a remarkable evolution that has placed it as one of the most demanded medical disciplines given its relevant role in the detection and treatment of various diseases in a minimally invasive way. This growth has gone together with the development of the procedures used in this area, where a possible future application of nuclear fusion to enhance tissue analysis and to monitor different diseases is beginning to be envisaged. Therefore, the constant innovation of this medical sector forces specialists in this field to continuously update their skills in order to be up-to-date and provide the best health services to each patient.

For this reason, this program has been designed to help students assimilate the most advanced skills in Nuclear Medicine in order to be at the medical forefront in this field in a completely practical way. Through its integration for 3 weeks in a hospital center that has the latest technology, will enhance their skills in image monitoring of patients suffering from various types of cancer tumors or master the administration of radiopharmaceuticals in people with bone metastases. In addition, they will develop diagnostic strategies for the sequencing of tests developed for children in order to minimize radiation.

All this, accompanied throughout their practical experience by a tutor specifically designated for each student, who will be responsible for resolving any doubts that may arise during this academic path, providing them with the best advice and ensuring that the teaching allows them to perfect their professional skills.

# 02 Why Study an Internship Program?

Nuclear Medicine is a field in which it is extremely important to know how to apply all the scientific advances in the real working environment to achieve maximum diagnostic efficiency and optimize the therapy of patients suffering from various diseases. In this line, this program will enable the physician to incorporate all the innovations in this health sector in an exclusively practical way and, therefore, acquire first level professional skills.



This academic institution offers you the great opportunity to develop your skills in Nuclear Medicine in a first-class medical environment, surrounded by the best professionals in the field and using the latest technology in this field"

### 1. Updating from the latest technology available

In the Nuclear Medicine field, the evolution in the methods used to diagnose cardiovascular diseases or tumors of various kinds is the order of the day. For this reason, and in order to provide physicians with high skills in the management of these advances, TECH has decided to create this Internship Program.

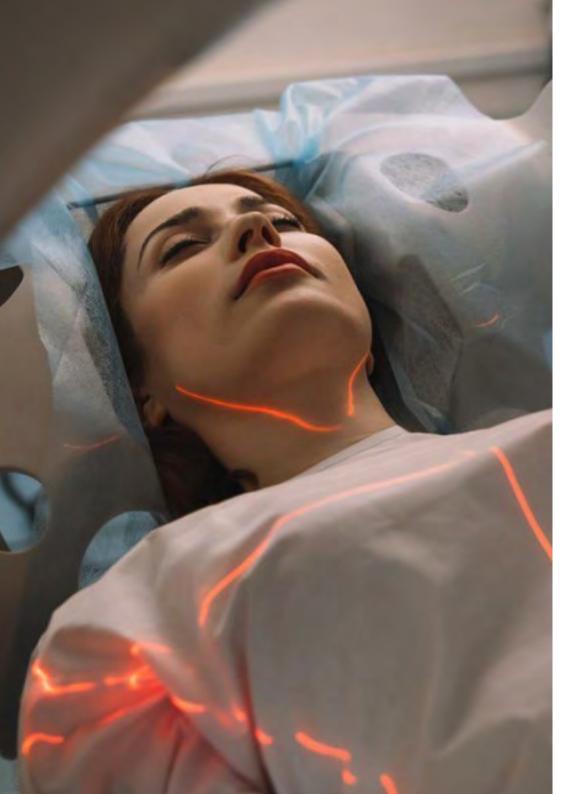
#### 2. Gaining In-Depth Knowledge from the Experience of Top Specialists

The excellent multidisciplinary team in which the student will be integrated during their internship experience is a great endorsement of the quality offered by this educational program. With a tutor designated for them, who will supervise the student, they will deal with real patients in order to adopt the most up-to-date diagnostic and therapeutic techniques in Nuclear Medicine.

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

TECH carefully selects all available centers for Internship Programs. Thanks to this, the specialist will have guaranteed access to a prestigious clinical environment in the field of Nuclear Medicine.

In this way, they will be able to see the day-to-day work of a demanding, rigorous and exhaustive sector, always applying the latest theses and scientific postulates in its work methodology.



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

The vast majority of educational programs have a broad theory and completely forget the practical part, therefore, the acquisition of professional competencies for the student is limited. Faced with this situation, TECH has created an innovative learning model with which the student, in a 100% practical way, will develop their skills in the work environment in just 3 weeks.

#### 5. Expanding the Boundaries of Knowledge

TECH offers the possibility of carrying out this Internship Program in a large number of high-quality centers. This way, the specialist will be able to catch up with the best professionals, who work in first-class centers. A unique opportunity that only TECH could offer.



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

# 03 Objectives

The objective of the Internship Program in Nuclear Medicine is to enable the physician to expand and update their knowledge in this health field, through a stay in a hospital center characterized by its high quality both in its technological equipment and human resources.



## **General Objectives**

- Expand the knowledge of the physician specialized in Nuclear Medicine
- Perform and interpret functional tests in an integrated and sequential manner
- Enhance decision making in the therapeutic strategy chosen for each patient
- Apply clinical and biochemical criteria for the diagnosis of infections and inflammations



Expand your skills in Nuclear Medicine in an exclusively practical way by taking this program that TECH offers you"







### **Specific Objectives**

- Establish a strategic management plan in Nuclear Medicine, considering the environment of the institution, its needs and resources
- Delve into the different organizational forms and the implementation of a quality program oriented to continuous improvement focused on the patient
- Obtain diagnostic, response predictive and prognostic biomarkers, offering patients personalized precision therapy
- Show the characteristic imaging patterns for new pathologies, the causes of diagnostic error and the update of advances in conventional Nuclear Medicine in a practical way
- Accurate diagnose each pathology with the least consumption of resources and radiation for the patient
- Interpret images and know the different pathologies by organs and systems and differential diagnosis of pediatric patients
- Optimization of dosimetric parameters
- Manage the best diagnostic strategy with proper sequencing of tests, minimizing radiation
- Avoid the use of tests that do not provide information for the management of the child
- Master the clinical, diagnostic and therapeutic aspects of NETs
- Determine protocols for the performance of radioguided surgery techniques
- Delve into the role of PET/CT studies in tumors with the highest incidence
- Detect the impact of PET/CT studies in the diagnosis and assessment of response and follow-up of oncologic tumors
- Provide appropriate care for the patient treated with metabolic therapy

## 04 Educational Plan

The Internship Program in Nuclear Medicine is designed to be developed through a 3-week hospital internship in a first class center, from Monday to Friday, with 8 consecutive hours of work under the supervision of an attending specialist. Thanks to this practical period, the student will have the opportunity to deal with patients suffering from various pathologies, using the most avant-garde procedures for their detection.

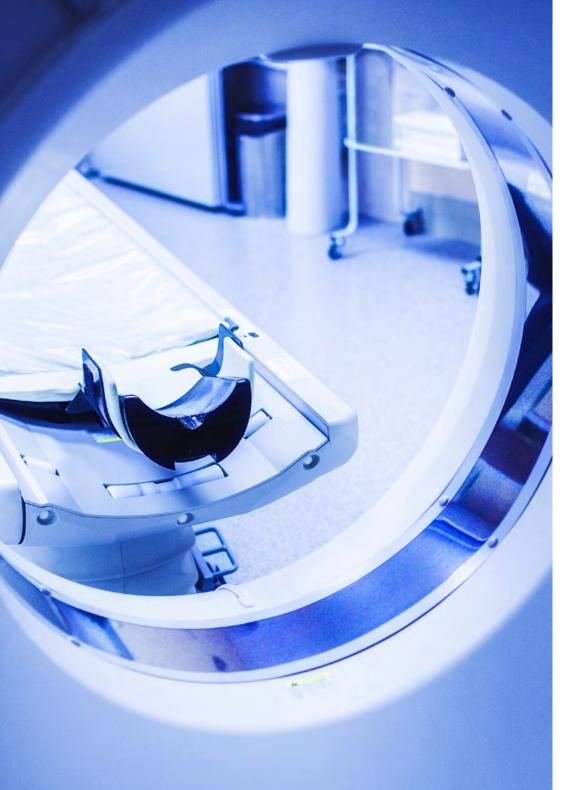
In this completely practical internship program, the activities are aimed at developing and perfecting the skills necessary to provide medical care in areas and conditions that require highly qualified professionals, and are oriented towards specific expertise for practicing the activity, in a safe environment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

Therefore, this unique opportunity that TECH offers its students is ideal to enhance medical skills through professional practice in a hospital center where the application of the most advanced technology is the key to provide a rigorous and advanced diagnosis and treatment for each of their patients.

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



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"



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	
	Coordinate the Nuclear Medicine Unit to guarantee its adequate functional structure and the correct operation of all the human teams involved in it	
Management of the Nuclear Medicine Unit	Carry out a strategic plan adapted to the environment of the health institution, its need and resources, with the aim of optimizing patient care	
	Implement a quality program aimed at continuous improvement in hospital care centered on the patient	
0 1 17	Assess the response of a patient suffering from an oncological tumor to radiometabolic therapy using clinical-biochemical or morphological criteria	
Oncological Tumors and PET/CT - PET/MR for Oncology	Perform imaging follow-up of patients with various types of oncological tumors	
	Follow up a patient with breast cancer to observe their response to treatment	
Radioligand Targeted	Carry out therapy with radiolabeled peptides for patients suffering from neuroendocrine and gastroenteropancreatic tumors	
Therapy	Administer different types of radiopharmaceuticals in patients with bone metastases and analyze the results obtained by such treatment	
	Interpret the images extracted in Nuclear Medicine tests for the detection of different cardiovascular pathologies in pediatric patients	
Nuclear Medicine in Pediatrics	Detect thyroid pathology in the child from the interpretation of Nuclear Medicine tests	
	Perform the corresponding tests for the pediatric patient suspected of having an oncologic tumor	

# 05 Where Can I Do the Internship Program?

TECH has selected a large number of hospital centers where students can take this Internship Program, so that they can choose the one that best suits their personal and professional requirements in order to optimize their learning process.



Do your Internship Program in a hospital center of the highest level and, together with the best professionals, enhance your skills in Nuclear Medicine"







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



### **Hospital HM Modelo**

Country

City

Spain

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



### 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





### **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



### **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







### Hospital HM Puerta del Sur

Country Spain City 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

Country Spain 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

## 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 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. This 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 program agreement shall be 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 Nuclear Medicine** 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.

Program: Internship Program in Nuclear Medicine

Duration: 3 weeks

Attendance: Monday to Friday, 8-hour consecutive shifts

Total Hours: 120 h. of professional practice





