

Internship Program Clinical Genetics



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Internship Program
Clinical Genetics

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01 Introduction

The advances obtained in recent years in the field of genetics have enabled the early detection of certain cancers, and have also contributed to the creation of drugs and therapies that improve the prognosis of patients with Alzheimer's disease or rare diseases. This progress is undoubtedly guiding the healthcare field towards precision medicine. Faced with this reality, TECH has created this program, which offers the professional a 3-week internship in one of the best clinical centers specialized in Genetics. A unique experience with real experts in this field that will lead the physician to obtain a complete update in a first class health environment.



Incorporate into your daily practice the most relevant advances in the area of Assisted Reproduction thanks to a distinctive, unique and effective practical experience"





Thanks to scientific studies in the field of genetics, important milestones have been reached in both the diagnosis and treatment of certain pathologies. The discoveries of new relationships between genes and diseases not only make it possible to obtain more information on the origin and cause of the pathology, but also drive the creation of more effective therapies.

This is a promising scenario both for researchers and for the patients themselves, who are eagerly awaiting positive results. Therefore, important advances have been achieved in Oncology, Reproductive Medicine or Cardiogenetics. Faced with this reality, TECH has decided to provide medical professionals with a program that offers the possibility of a clinical internship in a first-class hospital center in this field.

In this way, the specialist will be able to obtain a complete, direct and close vision of the advances achieved in this field, thanks to the tutoring of an expert who will show them the techniques, methods and procedures carried out with patients who present various pathologies with a large hereditary component.

In this way, they will achieve in a short but intense period of time, an update from the best in Clinical Genetics and in a center that is at the forefront in this field of great future for medicine.

02

Why Study an Internship Program?

In this program, TECH has focused its efforts on providing a real response to the needs of updating medical professionals in the field of Clinical Genetics. For this purpose, it provides a 3-week clinical internship in prestigious hospitals in this field, where the specialist will be able to carry out an intensive immersion with the best experts in this field. In this way, they will obtain the information they need to improve their diagnostic and therapeutic skills in patients with a high hereditary component in the diseases they suffer from. A unique academic opportunity that does not revolutionize the traditional teaching systems, and that focuses the activity on offering the professional an update with real utility.



TECH gives you the opportunity to surround yourself for 3 weeks with the best specialists in Clinical Genetics in a 100% real professional environment”

1. Updating from the latest technology available

New genetic study techniques and new technologies have made it possible to obtain optimal results in hereditary diseases. These advances have completely transformed medicine in recent years. For this reason, TECH has created this Internship Program that brings the specialist closer to the latest generation technological devices used in this field.

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

This Internship Program brings the medical professional closer to the best specialists in the field of Clinical Genetics. In this way, throughout the 120 hours of duration of this program, students will be tutored by a real expert in this field who will show real clinical cases, study techniques and the methodology used for the approach of the different diseases treated under the maximum scientific rigor.

3. Entering First-Class Clinical Environments

TECH's objective is to offer the medical professional an update of their knowledge in a first-class clinical environment. In order to achieve this goal, this institution carries out a thorough selection process of all the centers available in the Internship Program. Therefore, the students will be able to experience the day-to-day in a work area made up of excellent professionals, who perform their duties with rigor, applying the latest theses in their work methodology.

1,106,147	302,969	154,767	148,202	17,052	9,331	7,721	59,869	30,980
1,089,928	295,222	150,586	144,636	16,527	9,067	7,460	56,352	28,819
1,084,11	290,100	146,884	143,216	15,945	8,638	7,307	53,336	27,490
1,063,235	286,959	145,802	141,157	15,565	8,516	7,049	51,162	26,600
1,048,880	286,623	146,239	140,384	14,960	8,105	6,855	49,225	25,560
1,074,050	289,072	147,143	141,929	14,776	8,163	6,613	47,903	24,708
1,050,200	289,585	148,309	141,276	14,367	7,885	6,482	45,609	23,823
1,055,221	289,971	148,602	141,369	14,037	7,630	6,407	44,707	23,382
1,069,945	292,808	149,108	143,700	13,918	7,607	6,311	43,194	22,808
1,049,377	287,315	145,970	141,345	13,124	7,134	5,990	40,533	21,298
1,078,064	291,300	148,022	143,278	13,147	7,106	6,041	40,127	21,186
1,077,393	290,051	148,835	143,216	12,415	6,750	5,665	38,332	20,483
1,068,473	287,709	145,908	141,801	11,977	6,466	5,511	37,048	19,829
1,064,096	285,826	145,184	140,642	11,363	6,185	5,178	34,875	19,018
1,056,013	285,064	145,703	139,361	11,312	6,092	5,220	33,675	18,330
1,025,794	278,440	143,417	135,023	10,845	5,994	4,851	31,987	17,659
1,009,509	276,520	144,110	132,410	10,576	5,985	4,591	30,756	17,060
1,000,982	282,089	149,472	132,617	10,127	5,563	4,564	29,508	16,550
990,160	286,401	154,175	132,226	9,997	5,574	4,423	28,297	15,933
971,052	282,379	153,019	129,360	9,637	5,497	4,140	27,103	15,408
863,108	282,151	153,502	128,649	9,579	5,434	4,145	25,386	14,532
826,824	269,219	146,630	122,589	8,953	5,181	3,772	23,660	13,568
827,407	269,525	147,331	122,194	8,621	4,948	3,673	22,173	12,727
842	265,498	145,359	120,139	8,316	4,877	3,439	21,127	12,211
849	267,642	146,393	121,249	8,614	4,877	3,548	20,042	11,688
847,36	264,019	144,228	119,791	7,917	4,617	3,300	18,963	11,155
	254,814	139,551	115,263	7,602	4,432	3,170	17,689	10,496
				7,301	4,365	2,936	16,514	9,795
				7,154	4,181	2,973	15,887	9,441
				6,949	4,117	2,832	14,483	8,627

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

From the first day that the medical professional enters this academic program, they will carry out practical activities, which will allow them to be in charge of state-of-the-art procedures in the field of Clinical Genetics. In this way, they will be able to integrate the methods and processes used in this area into their daily practice. All this in just 3 weeks of professional practice.

5. Expanding the Boundaries of Knowledge

TECH provides in this Internship Program not only the possibility of accessing a stay in centers of national and international importance, but also the opportunity to be up-to-date with the best professionals. Experts who practice in prestigious hospitals and who incorporate the latest advances in Clinical Genetics into their work. An excellent opportunity that only this academic institution offers.



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

03

Objectives

This academic institution has designed this program with the main objective of offering students an update of their competencies and skills for the diagnosis and treatment of patients through Clinical Genetics. All this, through a Internship Program created with clinical rigor and with a high component of innovation in the techniques and methods used by the best experts.



General Objectives

- Master the latest techniques and genetic analytical tests for the early detection of diseases
- Incorporate into daily work the most effective methods and procedures to treat hereditary diseases
- Be aware of new drugs used in patients with genetic risk factors





Specific Objectives

- ◆ Perform appropriate genetic counseling in clinical practice
- ◆ Collaborate in the resolution of complex clinical cases
- ◆ Interpret diagnoses based on laboratory tests performed in certain pathologies
- ◆ Establish differential diagnoses in patients with oncological pathologies
- ◆ Use the necessary tools to identify families susceptible to different cardiovascular syndromes
- ◆ Update knowledge of cytogenetic and molecular diagnostic techniques
- ◆ Apply the existing protocols for the detection of patients with hereditary cancer
- ◆ Analyze preimplantation genetic diagnostics in cancer patients
- ◆ Inform patients about the diagnosis of diseases of the sensory organs and the risk of disease transmission
- ◆ Use of clinical and analytical data to establish differential diagnosis, from the point of view of genetics

04 Educational Plan

The Internship Program in Clinical Genetics consists of a practical stay in a prestigious clinical center, a 3-week period, from Monday to Friday with 8 consecutive hours of work with an attending specialist. This internship allows the professional to observe the work done with patients who present hereditary diseases and who require the most advanced knowledge in genetics, in order to improve their prognosis. All this, also applying the most innovative diagnostic procedures and the latest treatments.

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.

TECH provides, therefore, an excellent opportunity to improve professional skills in a first-class health space and within reach of very few. A unique experience, which will lead the specialist to obtain all the information they need to enhance their skills and offer their patients the best health care.

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).

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:



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
Genetic Diagnostic Techniques	Take samples for fetal DNA studies in maternal blood
	Assess the results of genetic analysis
	Contribute to the study of complex clinical cases
	Interpret the data obtained through digital PCR for genetic diagnosis
Genetic Techniques Applied to Cardiovascular Diseases	Study clinical cases of familial heart disease
	Collaborate in the diagnosis and prognosis of patients with hereditary cardiomyopathies
	Assess possible treatment alternatives in patients with aortic syndromes
	Analyze the techniques available in the laboratory for genetic studies
Approach to Pediatric Diseases	Collaborate in the detection of inborn errors of metabolism
	Study the main pediatric syndromes
	Provide adequate information on prenatal, preimplantational and preconception clinical genetics
Management of Patients with Cancer	Contribute to patient counseling on genetics and clinical practice
	Identify families with susceptibility to different hereditary cancer syndromes
	Develop preimplantation genetic diagnosis in cancer
	Collaborate in the planning of protocols with early prevention programs
	Assist in the identification of patients at risk for cancer through genetic analysis techniques

05

Where Can I Do the Internship Program?

TECH carries out a rigorous selection process of all hospital centers available for the realization of the Internship Program. In this way, it offers a range of possibilities to students who wish to enhance their skills in the best clinical environment. In addition, the most prestigious specialists in this field will be available in all these centers to guide students at all times so that they can successfully achieve their goal of updating their knowledge in Clinical Genetics.


“

Integrate the methods and techniques used in Clinical Genetics by the best hospitals”





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



Medicine.

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



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



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 Nuevo Belén

Country	City
Spain	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



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

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. 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 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 Clinical Genetics** 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 certificate issued by TECH will reflect the grade obtained in the test.

Program: **Internship Program in Clinical Genetics**

Duration: **3 weeks**

Attendance: **Monday to Friday, 8-hour consecutive shifts**

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



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