Internship Program

Up to Date Neurophysiological Diagnosis and Treatment

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Index

01

Introduction

Over the last few years, the field of Neurophysiology has experienced a considerable increase in scientific content and a growing demand for various techniques. At the same time, new scenarios have arisen for this specialty, leading to the need for its experts to become involved in multidisciplinary teams in order to offer quality medical care to multi-pathological patients. In this context, which demands increasingly qualified professionals, TECH has designed this innovative study program. In this Practical Training, the neurologist will be involved in the care and treatment of real cases by means of the most updated procedures through a face-to-face and intensive stay. This experience will last for 3 weeks and will be conducted by prestigious physicians in an internationally renowned health institution.

> *Get up to date on the latest methodologies and protocols to intervene the child patient with Epilepsy through this Practical Training"*

In little more than a decade, the techniques for Neurophysiological Diagnosis and Treatment have experienced exponential growth. Research in this medical area has brought with it complex methods and equipment such as the exploitation of the autonomic nervous system or the visual pathway, the use of video-electroencephalograms, invasive recordings, prolonged monitoring or electromyography of specific regions. In turn, Intraoperative Neurophysiological Monitoring technologies have become indispensable in most surgical units of medical centers.

Based on this scenario, TECH has created a first level Practical Training in which the medical professional will be updated on the latest developments for the monitoring of the brain's electrical activity and the most innovative procedures for the detection of neuromuscular diseases. On the other hand, you will be up to date on the latest clinical and instrumental approach protocols for sleep disorders. He will also delve into Neuromodulation for therapeutic purposes.

This learning process will take place through a face-to-face and 100% practical stay in state-of-the-art medical centers. In these facilities, the neurologist will work alongside experts known internationally for their mastery of the most complex procedures in this scientific field. These professionals will monitor the physician's progress and introduce them to the care of real cases using advanced instrumentation and modern techniques. The training will be extended for 3 intensive weeks, Monday through Friday, in 8-hour days.

02

Why Study an Internship Program?

Neurophysiology stands out in the medical landscape as a complex, interesting, attractive and constantly growing discipline. Its contribution is fundamental for the diagnosis and certain treatments of the nervous system and is possible thanks to the continuous renovation of its techniques and working tools. TECH has developed this educational product, 100% practical, to offer a multisectorial and holistic update to the physician on the latest scientific developments in this sector. The learning process will be carried out through a 3-week intensive on-site stay in internationally renowned hospitals. Likewise, in these health facilities, the professional in academic preparation will acquire knowledge together with prestigious experts in this medical area.

> *With TECH, you will develop new skills for the management of complex tools to implement high-level procedures such as Polysomnography and Intraoperative Neurophysiological Monitoring"*

1. Updating from the Latest Technology Available

In recent years, neurophysiology has evolved at a dizzying pace, giving rise to highly complex diagnostic and therapeutic techniques. From this degree, the physician will be able to up to date themselves on the application of all of them by means of innovative technologies. In particular, it will delve into the set of tools and techniques that are integrated into the area of Electronystagmography to diagnose involuntary eye movement, dizziness and balance disorders.

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

During this study program, the physician will have direct access to professionals with prestigious experience in the field of Neurophysiology. Together with them, you will work to diagnose real cases of varying complexity. You will also be guided at all times by a designated tutor who will rigorously monitor your academic progress.

3. Entering First-Class Clinical Environments

TECH has made a careful selection of all the centers that are now available to the health professional to complete this Practical Training. These healthcare facilities were chosen for their results and international prestige, which, in turn, were achieved through an excellent staff of expert neurologists and the use of high-end diagnostic and treatment equipment for this specialty.

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

Although the educational environment has multiple programs about Neurophysiology, none of them emphasizes the neurologist's update in a 100% practical way. Therefore, TECH sets itself apart from its competitors by providing a unique educational program that will allow the professional to deal directly with real patients from the first hour of this training.

5. Expanding the Boundaries of Knowledge

TECH's educational programs aim for its graduates to achieve international prestige upon completion of this Practical Training. To this end, it has devised an intensive educational model that will facilitate the professional's stay in cutting-edge medical institutions, located in different geographical latitudes.

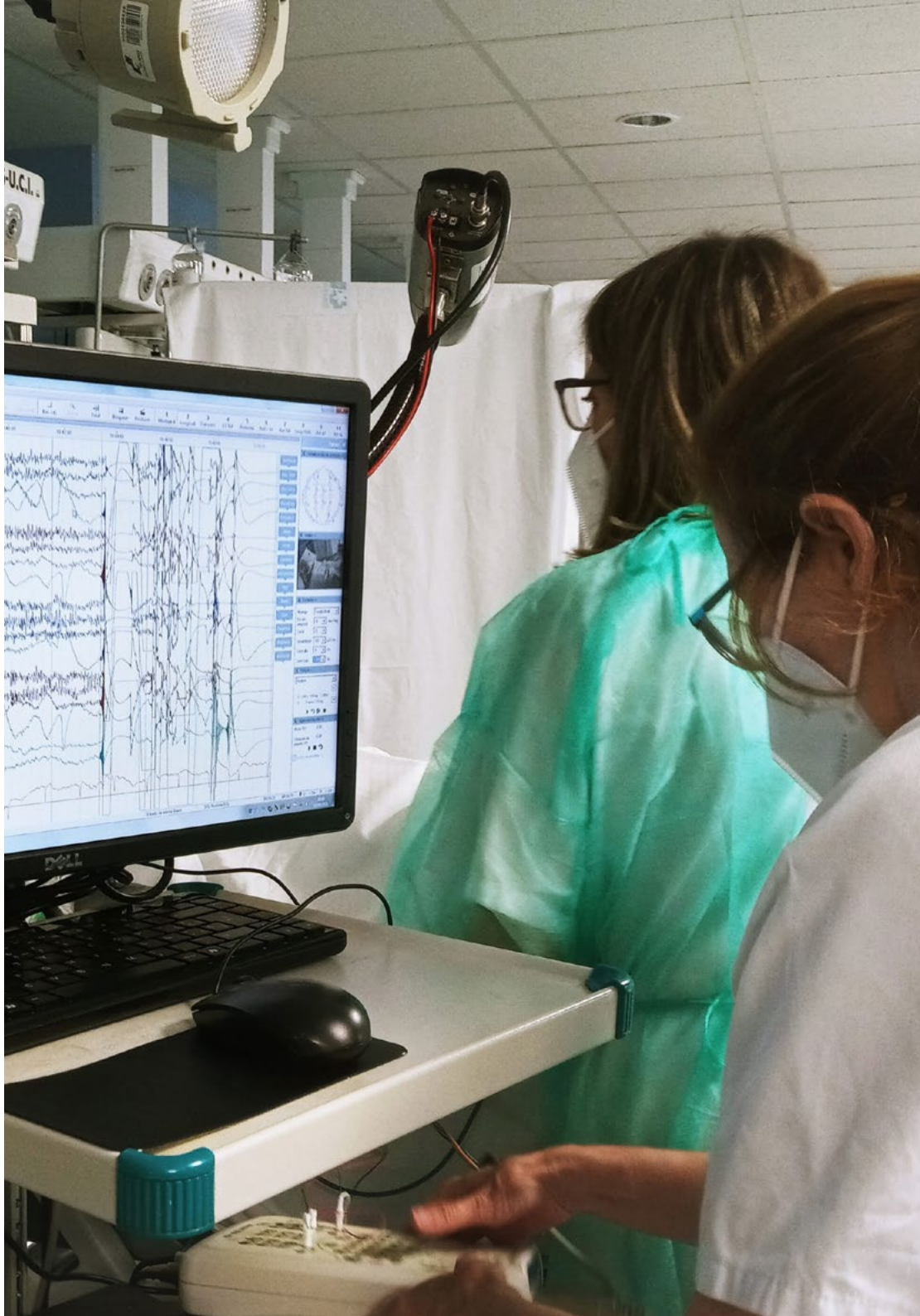
You will have full practical immersion at the center of your choice"

03
Objectives

The main objective of this degree is to update the student on the most innovative procedures for the diagnosis and treatment of neurophysiological diseases. In order to achieve this goal, an intensive and immersive practical stay has been designed to enable the physician to use new technologies to treat the different pathologies present in real cases.

General Objectives

- To master the most modern scientific techniques and methods for neurophysiological diagnosis in different training areas
- Manage innovative technologies and equipment widely used in Neurophysiological Diagnosis and Treatment
- Apply novel techniques and tools in daily practice as physicians, leading to new diagnostic indications and research



Specific Objectives

- Decide upon the most appropriate techniques for the diagnosis of different pathologies
- Learn to identify physiological and pathological conditions The patterns, as well as their correlation with age, level of wakefulness/sleep, consciousness, pharmacological interference and clinical significance
- Learn to locate abnormalities, spatio-temporal value, limitations and advantages of the technique. Identify artifacts and normal patterns that may mimic pathological graphoelements
- Diagnose electroclinical syndromes in all stages of life (specific patterns)
- Delve on national and international guidelines and protocols for electroencephalogram use in ICUs and status epilepticus
- Take a deeper look at the bases for obtaining the different evoked potentials
- Use ultrasound for precise localization during botulinum toxin infiltration
- Review the Master for instrumental guidance in muscle localization (EMG/stimulation vs. ultrasound)
- Master the clinical and electrodiagnostic findings of focal neuropathies, plexopathies, cervical and lumbosacral radiculopathies
- Acquire the ability to plan, perform and assess multimodal neurophysiological techniques applied to the different fields in surgical areas
- Handle the main test batteries to determine the different dysautonomic affectations
- Deepen knowledge of the structure of normal sleep in all stages of life and its increasing number of known functions
- Recognize physiological changes during sleep, the neurobiological bases of its cycles and the influence of drugs and substances on sleep
- Acquire skills for the diagnosis of insomnia, hypersomnias and circadian disturbances, through the integrated management of data and clinical tools and instrumental tests
- Learn the protocols for the application of direct cortical stimulation in the treatment of drug-resistant chronic pain
- Manage neuromodulation therapies as an adjuvant treatment that is part of a multidisciplinary whole, and not as a treatment in exclusivity

Through this hands-on training, you will master the most recent innovations regarding the methodology and application of high-density EEG and generator localization"

04
Educational Plan

During the face-to-face stay that corresponds to this Practical Training, the physician will be hosted for 3 weeks in a first level hospital center. At this institution, they will complete 8-hour working days, from Monday to Friday, together with the most distinguished professionals in the field of Neurophysiology. Together with them, they will handle complex and up-to-date equipment, offering high-level diagnostics and treatments to patients affected by various neurological pathologies.

In this completely practical training proposal, the activities are aimed at developing and perfecting the skills necessary for the provision of Oral Medicine in the area of dentistry, and which are oriented toward specific practical training in the area and in a real environment with the guidance of highly prestigious professionals.

In addition, this program is a unique opportunity to be updated on the latest neurophysiological procedures by a renowned expert. Therefore, through the figure of the assistant tutor, the neurologist will broaden his skills and specialize, even more, in Neurophysiology techniques, among which the innovative methodologies for the detection of disorders in the field of Neurolaryngology by means of Electromyography stand out.

The practical education 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 fellow trainees that facilitate teamwork and multidisciplinary integration as transversal competencies for Current the neurophysiological practice(learning to be and learning to relate).

The procedures described below will form the basis of the practical part of the internship, 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”

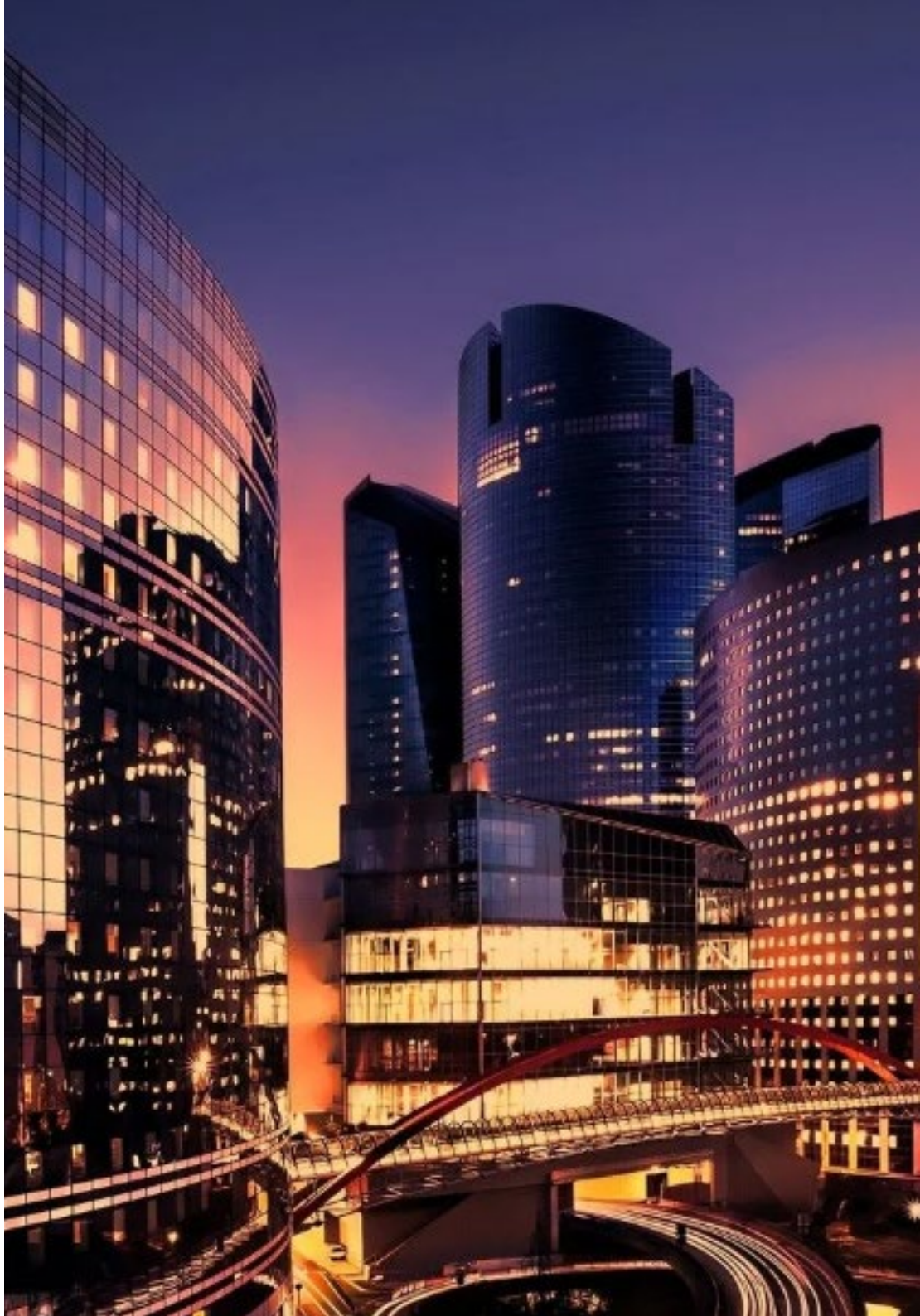
Module	Practical Activity
Precision neurophysiological techniques for monitoring electrical activity of the brain	Implement routine stimulation maneuvers for the adult or infant brain undergoing EEG, including eye closure and opening and intermittent brightness
	Applying unusual procedures for activation of brain electricity through sleep
	Detect signs of Electroclinical Syndromes, with emphasis on Epilepsy, of the neonate and infant by means of EEG
	EEG and Video-EEG monitoring of patients in Intensive Care Units and comatose patients
Neurophysiological Techniques in the Diagnosis of Neuromuscular Diseases	Apply Electromyography (EMG) to diagnose nerve and muscle disorders, as well as spinal nerve root compression
	Perform neurophysiological studies of the facial and trigeminal nerves through EMG
	Examine the nerve response of upper and lower limbs from Neuromuscular Ultrasound
	Use percutaneous interventional techniques for neuromuscular conditions
	Identify Myasthenia Gravis from EMG and nerve conduction studies
Intraoperative Neurophysiological Monitoring (NIM) Applications	Surgical intervention of tumors located in the nervous system (medulla, nerves, brain) through MNI
	Perform function mapping to determine the location of eloquent brain areas and avoid them during surgery
	To explore intraoperative language functioning during brain lesionectomies
	Apply NIM protocols for spinal cord, lumbar spine, sacral and vascular procedures
Clinical e Instrumental Diagnosis of Sleep Disorders	Detect Hypersomnias by multiple sleep latency test
	Intervening narcolepsy using Polysomnograms
	Evaluate parasomnias and insomnia by EEG and Polysomnograms
	Movement Disorder Evaluation during Sleep
Neurophysiological Techniques for Therapeutic Purposes: Invasive and NonInvasive Neuromodulation	Prevent neuralgia or numbness in the arms or legs by invasive neuromodulation
	Apply the VNS in Treating Epilepsy and Other Indications
	Botulinum Toxin Use: Cervical dystonia, Blepharospasm, Facial Myokymia, Oromandibular Dystonia, Upper Limb and Trunk Dystonia
	Perform Botulinum Toxin Infiltration Non-invasive with Guidance by Neurophysiological Techniques

05

Where Can I Do the Internship Program?

TECH is more than willing to expand the academic horizons of the medical professional to the most international standards possible. Therefore, specialists taking this Practical Training will have access to first level health institutions, located in different geographical latitudes. In this way, they will be able to update themselves on the latest trends in Neurophysiological Diagnosis and Treatment beyond the scope and criteria of foreign experts.

Enroll in TECH and get updated on the use of diagnostic techniques such as Electromyography to detect diseases within the field of Neurolaryngology"



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

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

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

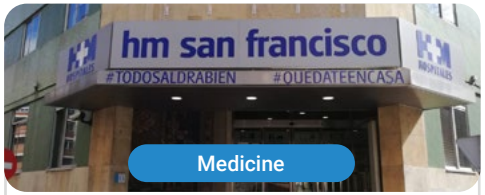
Hospital HM La Esperanza

Country: Spain
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



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
- Nursing in the Traumatology Department

Hospital HM Regla

Country: Spain
City: León

Address: Calle Cardenal Landázuri, 2, 24003, León

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

Related internship programs:
- Update on Psychiatric Treatment in Minor Patients

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

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

Hospital HM Montepríncipe

Country: Spain
City: 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: 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

Hospital HM Sanchinarro

Country: Spain
City: 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 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

HM CINAC Barcelona

Country: Spain
City: Barcelona

Address: Avenida de Vallcarca, 151, 08023, Barcelona

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

Related internship programs:
Neurodegenerative Diseases
Neurology Nursing

Policlínico HM Arapiles

Country: Spain
City: Madrid

Address: C. de Arapiles, 8, 28015, Madrid

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

Related internship programs:
- Anaesthesiology and Resuscitation
- Pediatric Dentistry

Policlínico HM Cruz Verde

Country: Spain
City: 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

Policlínico HM Virgen del Val

Country: Spain
City: Madrid

Address: Calle de Zaragoza, 6, 28804, Alcalá de Henares, Madrid

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

Related internship programs:
- Diagnosis in Physiotherapy
- Physiotherapy in Early Care

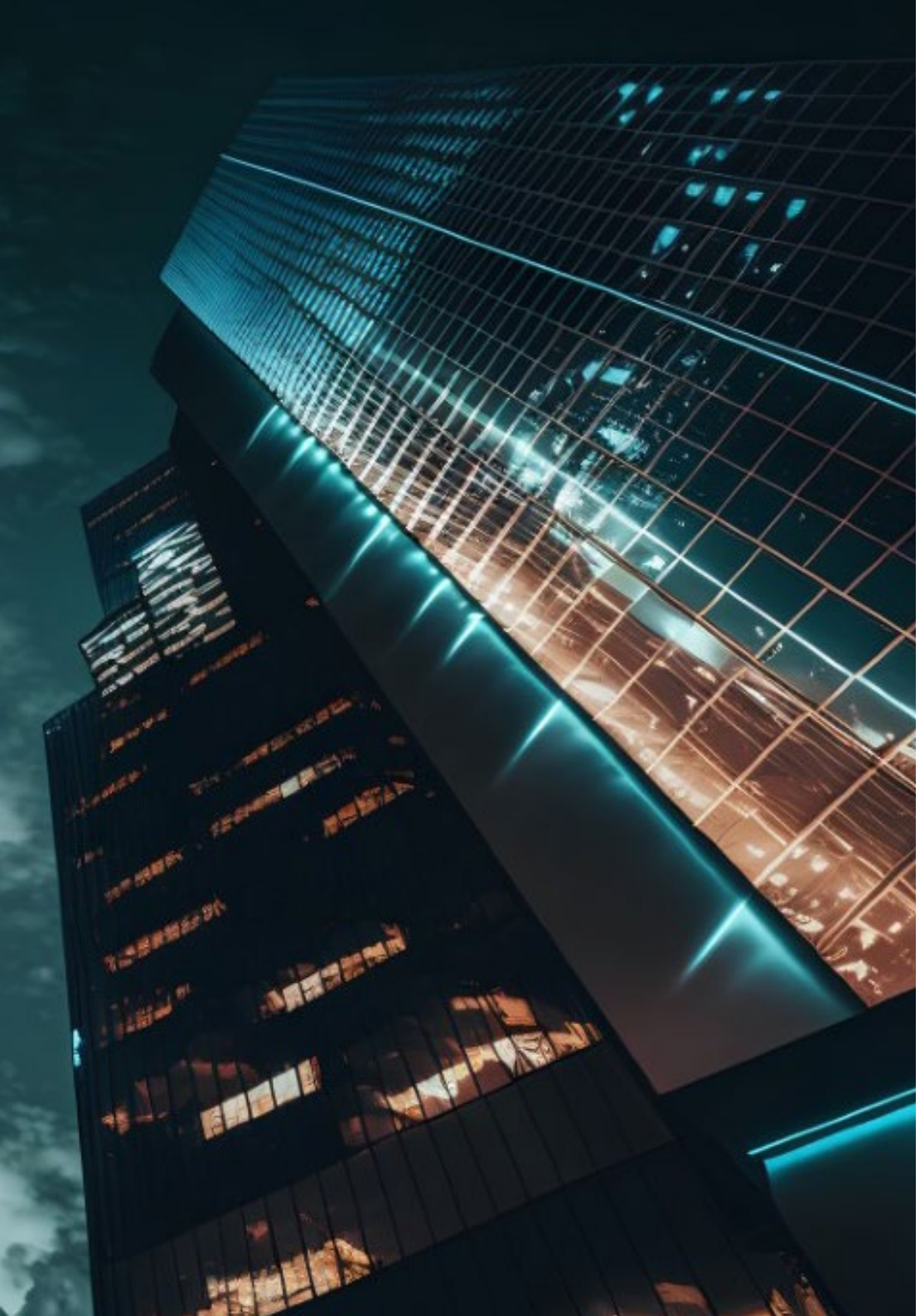
Policlínico HM Imi Toledo

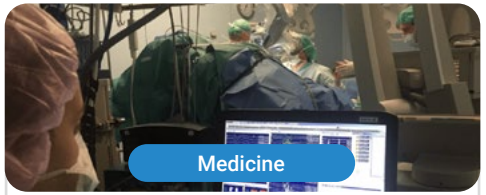
Country: Spain
City: Toledo

Address: Av. de Irlanda, 21, 45005, Toledo

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

Related internship programs:
- Electrotherapy in Rehabilitation Medicine
- Hair Transplantation





Neurotoc

Country
Spain

City
Barcelona

Address: Calle Padilla, 327-329, Ent. 68,
08025 Barcelona

Center for Intraoperative Neurophysiological Monitoring

Related internship programs:
- Update on Neurophysiological Diagnosis and Treatment

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 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 Up to Date Neurophysiological Diagnosis and Treatment** contains the most complete and up-to-date program on the professional and academic scene.

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

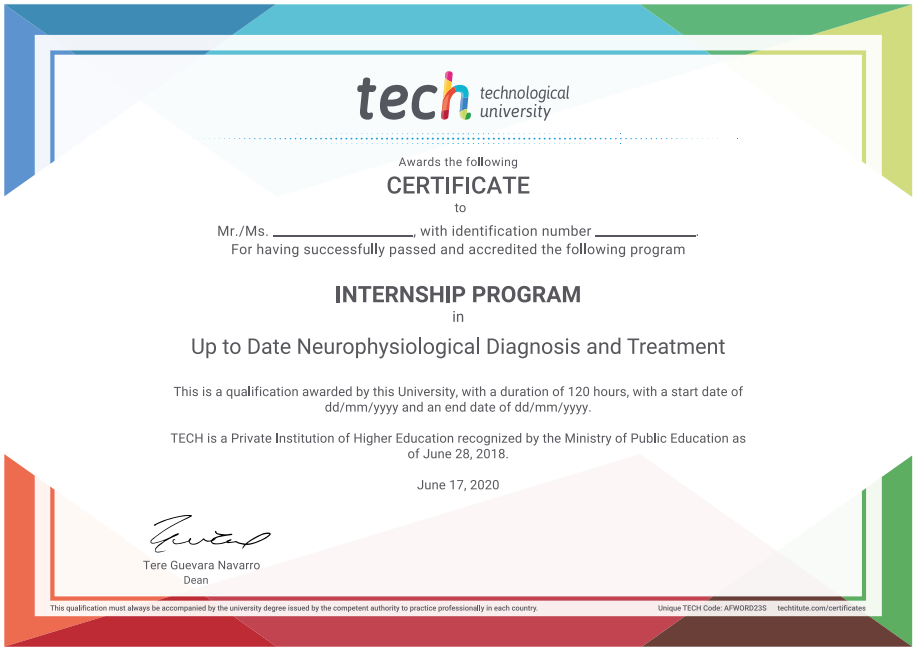
The certificate issued by TECH will reflect the grade obtained in the test.

Title: **Internship Program in Up to Date Neurophysiological Diagnosis and Treatment**

Duration: **3 weeks**

Course Modality: **Monday to Friday, 8-hour consecutive shifts**

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


tech technological university

Awards the following

CERTIFICATE

to

Mr./Ms. _____, with identification number _____.

For having successfully passed and accredited the following program

INTERNSHIP PROGRAM

in

Up to Date Neurophysiological Diagnosis and Treatment

This is a qualification awarded by this University, with a duration of 120 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

June 17, 2020

Tere Guevara Navarro
Dean

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country. Unique TECH Code: AFWORD23S techtitute.com/certificates

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Up to Date Neurophysiological Diagnosis and Treatment

Internship Program

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