Postgraduate Certificate

Spinal Tumors

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Postgraduate Certificate

Spinal Tumors

- Modality: **online**
- Duration: **6 weeks**
- Certificate: **TECH Global University**
- Credits: **6 ECTS**
- Schedule: **at your own pace**
- Exams: **online**

Website: www.techtitute.com/us/medicine/postgraduate-certificate/spinal-tumors

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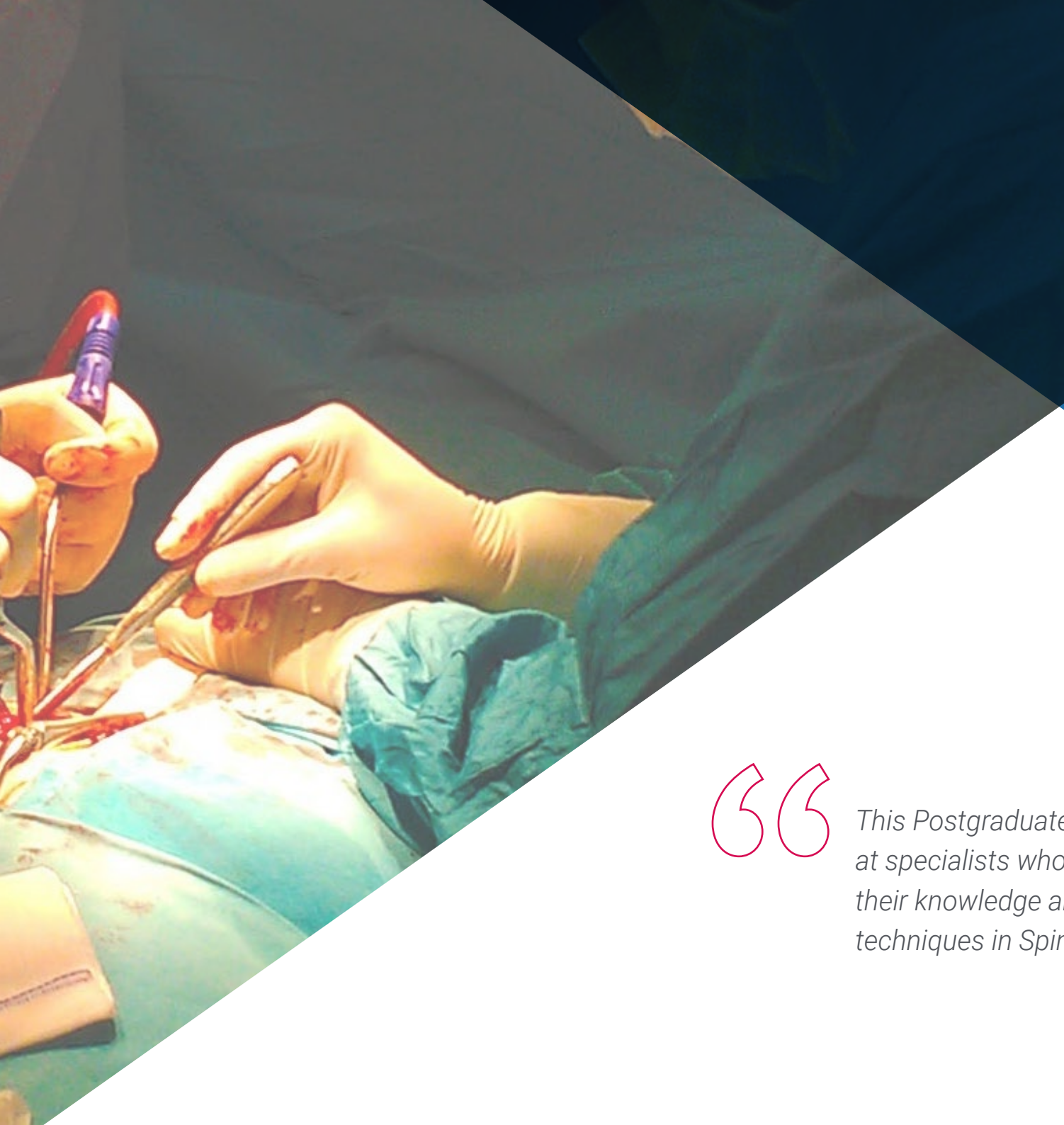
01

Introduction

The complexity of the treatment and approach to spinal tumors, which require a multidisciplinary approach, requires continuous training of the specialists who treat these patients and communication between them. Update your knowledge in Spinal Tumors with this program of high scientific rigor, developed by professionals with extensive experience in the field.



This Postgraduate Certificate is aimed at specialists who want to update their knowledge and acquire the latest techniques in Spinal Tumors"

There is an increasing trend towards subspecialization within the medical-surgical specialties. There are so many different areas in the human body, that it is difficult to be up to date in the knowledge of a specialty as broad as Spinal Surgery. Hence, the need for a complete and quality scientific program to help and guide in this specific and exciting field.

With this Postgraduate Certificate, the professional will have a complete vision of the knowledge derived from the Pathology of the Vertebral Column. The program will highlight advances in surgical practice that directly affect patient's quality of life and improvement of pain. These will be transmitted so that the specialists can have the most up-to-date view possible of the knowledge available in the field. For this purpose, experts in Spinal Surgery from Spain and South America will collaborate with us.

This program will teach the surgical techniques that are currently setting trends in the sector, used in the Specialized Surgery Centers. This will allow the professional, in addition to expanding his personal knowledge, to be able to apply it with greater skill in his daily clinical practice.

This **Postgraduate Certificate in Spinal Tumors** contains the most complete and up-to-date scientific program on the market. The most important features:

- The latest technology in online teaching software
- A highly visual teaching system, supported by graphic and schematic contents that are easy to assimilate and understand
- Practical cases presented by practising experts
- State-of-the-art interactive video systems.
- Teaching supported by telepractice
- Continuous updating and recycling systems
- Autonomous learning: full compatibility with other occupations
- Practical exercises for self-evaluation and learning verification
- Support groups and educational synergies: questions to the expert, debate and knowledge forums.
- Communication with the teacher and individual reflection work
- Content that is accessible from any fixed or portable device with an Internet connection
- Supplementary documentation databases are permanently available, even after the course

This Postgraduate Certificate is the best investment you can make to acquire the best and most up-to-date training in Spinal Tumors"

Apply the latest trends in Spinal Tumors in the daily practice of your profession"

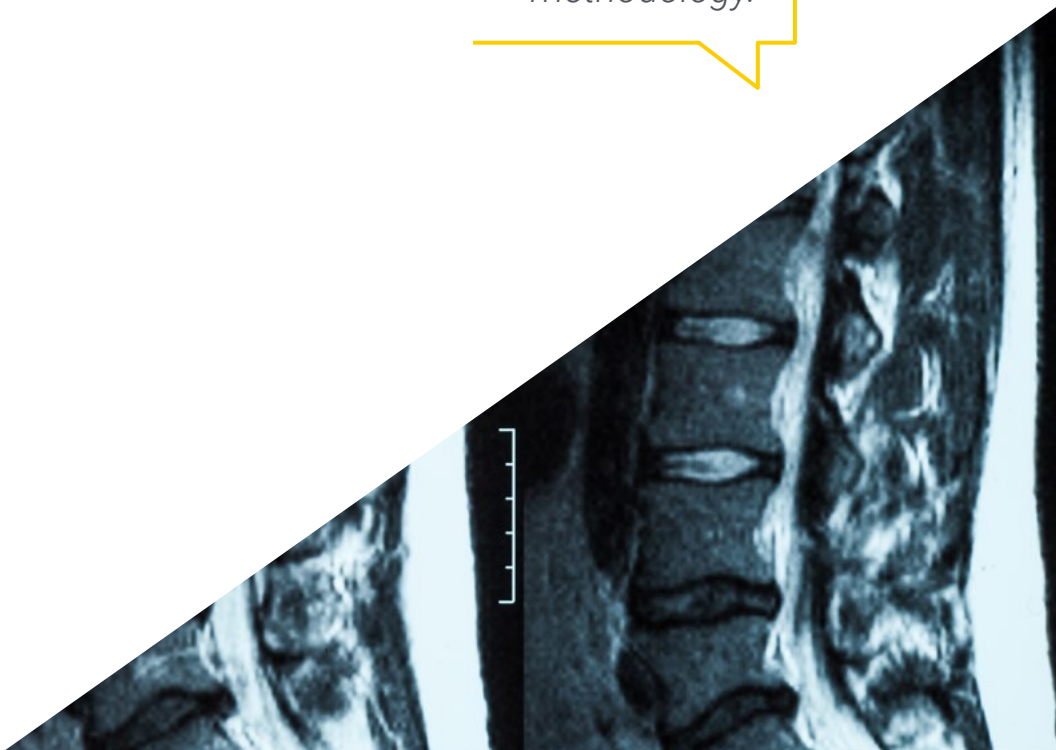
Our teaching staff is composed of medical professionals, practising specialists. In this way, we ensure that we can offer you the training update objective we are aiming for. A multidisciplinary board of physicians trained and experienced in different environments, who will develop the theoretical knowledge in an efficient way, but, above all, they will put at the service of the Postgraduate Certificate the practical knowledge derived from their own experience: one of the differential qualities of this course.

The efficiency of the methodological design of this master's degree, enhances the student's understanding of the subject. Developed by a multidisciplinary team of e-learning experts, it integrates the latest advances in educational technology. This way, you will be able to study with a range of comfortable and versatile multimedia tools that will give you the operability you need in your training.

The design of this program is based on Problem-Based Learning: an approach that conceives learning as a highly practical process. To achieve this remotely, we will use telepractice: with the help of an innovative interactive video system, and learning from an expert, you will be able to acquire the knowledge as if you were actually dealing with the scenario you are learning about. A concept that will allow you to integrate and fix learning in a more realistic and permanent way.

You will have the latest multimedia tools, designed by experts in Spinal Tumors, which will favor the speed of assimilation and learning.

This program uses the latest advances in educational technology, based on e-learning methodology.



02

Objectives

This Postgraduate Certificate will provide students with the theory and practice necessary to approach with ease and confidence pediatric surgical pathologies that can be treated by minimally invasive techniques, thus benefiting child patients.

Our objective is to train highly qualified professionals for work experience"

General Objective.

- Complement the training of specialists in Pediatric Surgery with special interest in minimally invasive techniques.
- Adequately prepare these professionals to face with guarantee and quality the different pediatric pathologies that can be addressed through these access routes.
- Enable students to offer professional assistance supported by an accredited teaching program

Specific Objectives

- Know the current options in the management of Spine Tumors through decision-making processes, therapeutic planning, surgical techniques and perioperative care using evidence-based knowledge.
- Attain an understanding of the different primary benign spinal tumors.
- Analyze the different current therapeutic options in benign primary tumors of the spine, using the development and presentation of different clinical cases.
- Learn about the use of denosumab in giant cell tumors.
- Learn the current management of low-grade primary malignant tumors, especially chondrosarcoma and chordoma.
- Know the therapeutic options and indications in acute spinal cord compression.
- Know the management of vertebral metastases.
- Learn the treatment and approach to spinal tumors.

An opportunity created for professionals who are looking for an intensive and effective Postgraduate Certificate, with which to take a significant step forward in the practice of their profession"

03

Course Management

Within the concept of total quality of our Postgraduate Certificate, we are proud to put at your disposal a teaching staff of the highest level, chosen for their proven experience in the medical field. Professionals from different areas and fields of expertise that make up a complete, multidisciplinary team. A unique opportunity to learn from the best.

An impressive teaching staff, trained by professionals from different areas of expertise, will be your teachers during your training: a unique occasion not to be missed"

International Guest Director

Awarded by the American Association of Neurological Surgeons for his advances in this clinical field, Dr. Jeremy Steinberger is a renowned physician specialized in the treatment of various spinal disorders. His philosophy is based on developing individualized therapeutic plans according to the specific needs of each patient, using minimally invasive techniques.

In this way, he has carried out his work in health institutions of international reference such as the Mount Sinai Health System in New York. Among his main contributions, he has led a wide range of surgical interventions that have managed to significantly reduce patients' chronic pain and, therefore, their quality of life. At the same time, he has developed different clinical protocols that have contributed to reduce the risks associated with post-surgical complications.

On the other hand, he has balanced these functions with his facet as a Scientific Researcher. In this sense, he has written numerous specialized articles on subjects such as preserving the mobility of individuals affected by spinal cord injuries, the use of emerging technology tools such as Robotics to guide operations and even the use of Virtual Reality to optimize precision during procedures. Thanks to this, he has managed to consolidate himself as a reference that has driven innovation in his field of work.

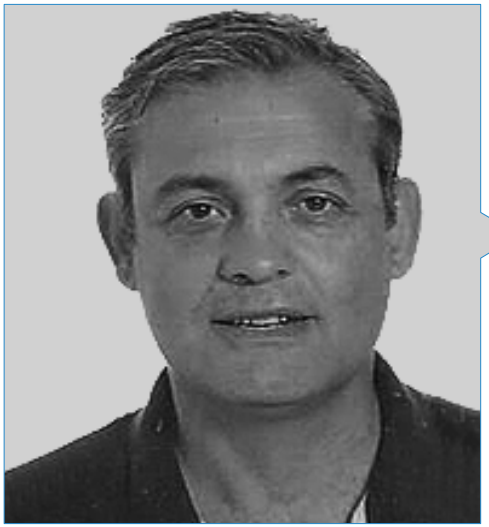
Committed to excellence, he has actively participated as a speaker at various international scientific congresses. In these events, he has shared his vast experience and the results of his research on Minimally Invasive Spinal Surgery; in addition to exposing the advantages of the use of cutting-edge instruments such as Augmented Reality in the treatment of diseases. This has allowed professionals to optimize their daily clinical practice, increasing the quality of care services and also improving the health of multiple people in the long term.

Dr. Steinberger, Jeremy

- Director of Minimally Invasive Surgery at Mount Sinai Health System, New York, United States
- Specialist in Neck and Spinal Pain Management
- Clinical Researcher with an extensive scientific production
- Internship in Orthopedic Spinal Surgery at Hospital for Special Surgery, New York
- Residency in Complex Spinal Surgery at Mount Sinai School of Medicine, New York
- PhD in Medicine from Yeshiva University
- Awarded on different occasions for his advances in the area of Spinal Surgery
- Member of: American Association of Neurological Surgeons, Society of Lateral Access Surgery and AO Spine

Thanks to TECH, you will be able to learn with the best professionals in the world"

Management



Dr. Losada Viñas, Jose Isaac

- Coordinator of the Spine Unit of Alcorcón Foundation University Hospital
- PhD in Medicine and Surgery from the University of Navarra.
- Member of the Communication Committee of GEER (Raquis Diseases Study Group).
- National Basic Research Award SECOT 1995
- Numerous national and international articles and books

Dr. González Díaz, Rafael

- Head of the Spinal Surgery Unit at Niño Jesús Hospital (pediatric surgery) and at Rosario Hospital and Sanitas la Moraleja Hospital in Madrid (adult and pediatric surgery).
- Doctor of Medicine and Surgery, Extraordinary Prize. University of Salamanca
- Specialist in Orthopedic and Trauma Surgery. Spine Surgery
- Master's Degree in Medical Management and Clinical Management by the School of Health/UNED
- Former president of the Spanish Spinal Society GEER (Study Group of Spine Diseases).
- Secretary General of SILACO (Ibero-Latin American Spine Society).
- Author of numerous articles and book chapters. Editor of two books on spinal surgery.
- Direction of 5 doctoral theses on spine pathology.

Professors

Dr. Barriga Martin, Andrés
- Head of the COT department at Paraplegics National Hospital of Toledo

Diez Ulloa, Máximo Alberto
- Head of Rachis Unit, Serv COT. U.C.H. Santiago de Compostela

Dr. García de Frutos, Ana
- Spine Unit of the Vall d'Hebron Hospital in Barcelona and in the ICATME Spine Unit at the Quirón-Dexeus Clinic in Barcelona

Dr. González Díaz, Rafael
- Head of Section, Spine Unit. COT Service. Niño Jesús Pediatric University Hospital

Dr. Hernández Fernández, Alberto
- Spine Unit, COT Service, Donostia University Hospital

Hidalgo Ovejero, Angel
- Head the COT Department. Ubarmin Hospital. Pamplona

Dr. Martín Benlloch, J. Antonio
- Dr Peset Hospital Valencia. Head of Spine Section, COT Service. Dr Peset University Hospital Valencia

Dr. Sanfeliu Giner, Miguel
- Head of the Spine Unit Section. COT service. General Hospital of Valencia

04

Structure and Content

The structure of the contents has been designed by a team of expert surgeons, which encompasses all the updates in spinal pathology.

This Postgraduate Certificate has a quality program adapted to the latest trends in the field of spinal surgery"

Module 1. Spinal Tumors

1.1. General Information of Vertebral Tumors
- 1.1.1. Pathophysiology of Vertebral Tumors
- 1.1.2. Prevalence and Incidence
- 1.1.3. Form of Presentation and Common Symptoms of Spinal Tumors.
- 1.1.4. Physical Examination and Laboratory Studies
- 1.1.5. Why are Spinal Tumors a Big Problem?
- 1.1.6. Common Radiotherapy Techniques for Spinal Tumors, their Indications and Special Technical Considerations
- 1.1.7. Effects of Chemotherapy on the Malignant Cells of These Tumors

1.2. Management of the Patient with Suspected Vertebral Tumor
- 1.2.1. Diagnostic Imaging and Percutaneous Biopsy
- 1.2.2. Principles and Approaches to Perform Biopsies
- 1.2.3. Histological Management of the Sample

1.3. Benign Primary Tumors
- 1.3.1. Main Benign Tumors of the Spine
- 1.3.2. Description and Indications for Percutaneous Surgery
- 1.3.3. Surgical Management

1.4. Primary Malignant Tumors of the Spine
- 1.4.1. Main Primary Malignant Tumors of the Spine
  - 1.4.1.1. Multiple Myeloma and Plasmacytoma
  - 1.4.1.2. Lymphoma

1.4.2. Oncologic and Surgical Staging
- 1.4.3. Low-grade and High-grade Malignant Tumors.
- 1.4.4. Posterior Surgical Treatment. Technique of Resection in Bloc of Thoracolumbar and Cervical Tumors. Sacral Tumor Resections.
- 1.4.5. Radiotherapy in Malignant Tumors. Indications and Results.
- 1.4.6. Results and Complications of Surgery.

1.5. Vertebral Metastases.
- 1.5.1. Pathophysiology of Vertebral Metastases and Oncologic Management of the Patients.
- 1.5.2. Main Metastatic Tumors in the Spine.
  - 1.5.2.1. Lung, Breast, Genitourinary, Gastrointestinal.
  - 1.5.2.2. Scales of Assessment and Prognosis
  - 1.5.2.3. Oncologic Management. Radiotherapy Indications and Results.
  - 1.5.2.4. Pain Management in Patients with Vertebral Metastases.

1.6. Surgical Management of Metastases.
- 1.6.1. Application of the Treatment Protocol. Indications for Surgery of Vertebral Metastases.
- 1.6.2. Percutaneous Treatment Vertebroplasty and Kyphoplasty
- 1.6.3. Palliative Versus Radical Treatment in Vertebral Metastases.
- 1.6.4. Complications of Surgery and Medical Care. How to Anticipate and Manage Them.

A unique, key and decisive training experience to boost your professional development"

05

Methodology

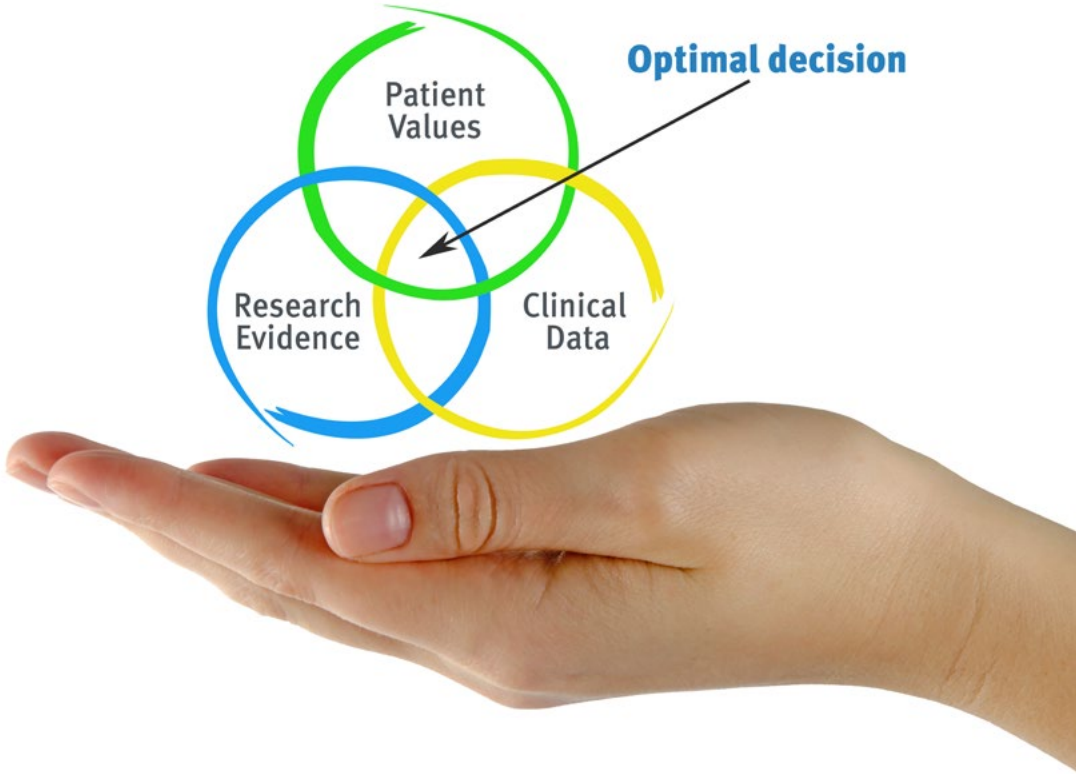
This training program provides you with a different way of learning. Our methodology follows a cyclical learning process***: Re-***learning.
This teaching system is used in the most prestigious medical schools in the world, and major publications have considered it to be one of the most effective, such as the ***New England Journal of Medicine.***

Discover Re-learning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

At TECH we use the Case Method

In a given situation, what would you do? Throughout the program, you will be presented with multiple simulated clinical cases based on real patients, where you will have to investigate, establish hypotheses and, finally, resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

With TECH you can experience a way of learning that is shaking the foundations of traditional universities around the world



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching potential or because of its uniqueness or rarity. It is essential that the case is based on current professional life, trying to recreate the real conditions in professional medical practice.

Did you know that this method was developed in 1912 at Harvard for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method"

The effectiveness of the method is justified by four fundamental achievements:

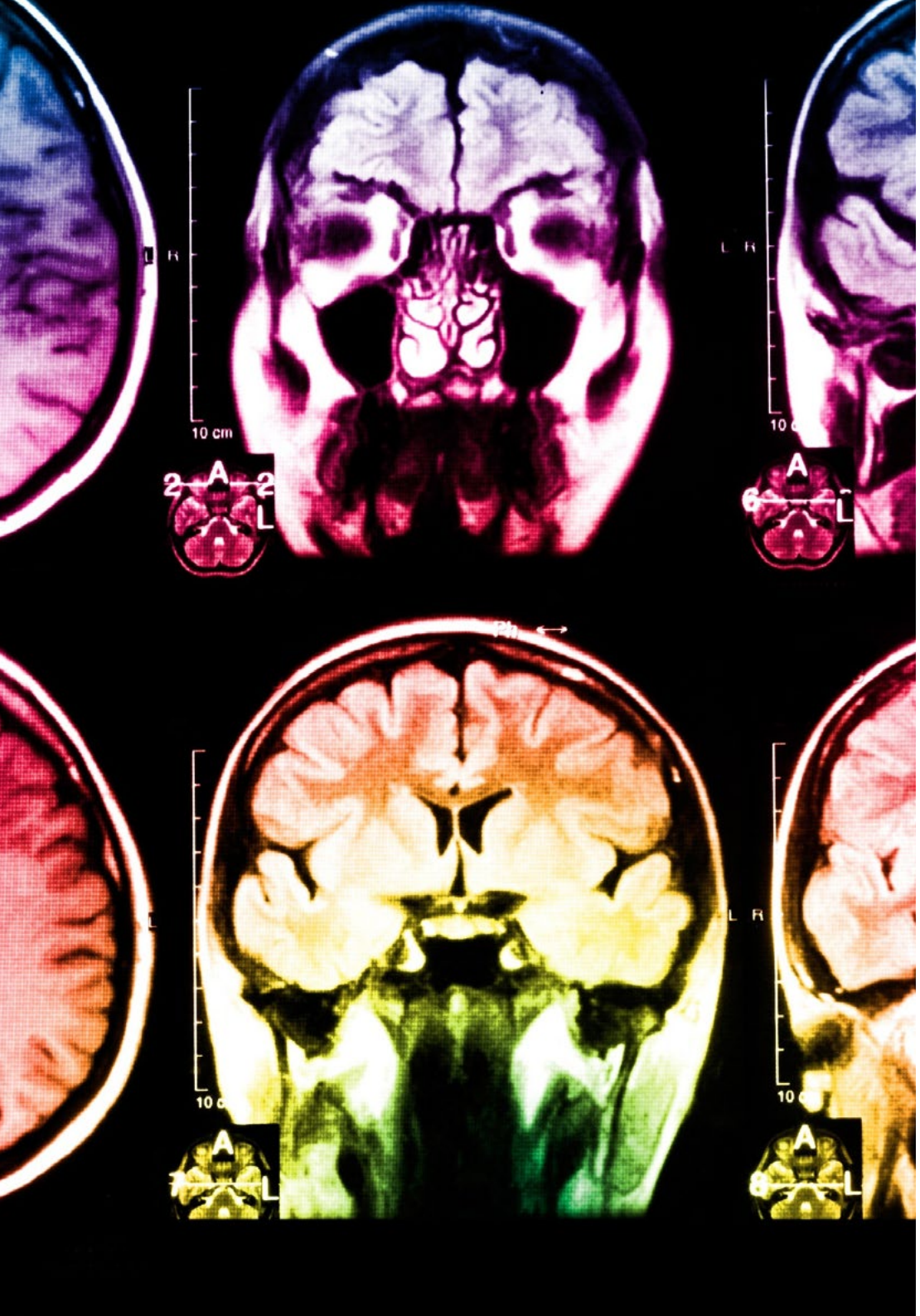
1. Students who follow this method not only grasp concepts, but also develop their mental capacity by evaluating real situations and applying their knowledge.
2. The learning process has a clear focus on practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.

Re-learning Methodology

At TECH we enhance the Harvard case method with the best 100% online teaching methodology available: Re-learning.

Our University is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, which represent a real revolution with respect to simply studying and analyzing cases.

The physician will learn through real cases and by solving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning



At the forefront of world teaching, the Re-learning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best Spanish-speaking online university (Columbia University).

With this methodology we have trained more than 250,000 physicians with unprecedented success, in all clinical specialties regardless of the surgical load. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

Re-learning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success

In our program, learning is not a linear process, but rather a spiral (we learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by our learning system is 8.01, according to the highest international standards.

In this program you will have access to the best educational material, prepared with you in mind:

Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is really specific and precise.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.

Latest Techniques and Procedures on Video

We introduce you to the latest techniques, to the latest educational advances, to the forefront of current medical techniques. All this, in first person, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many times as you want.

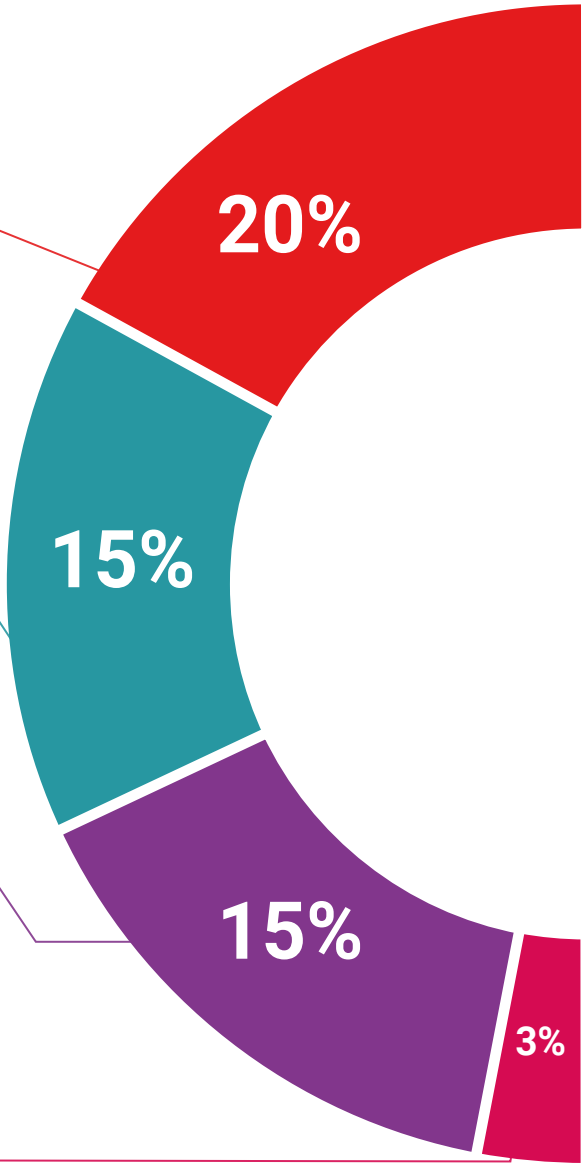
Interactive Summaries

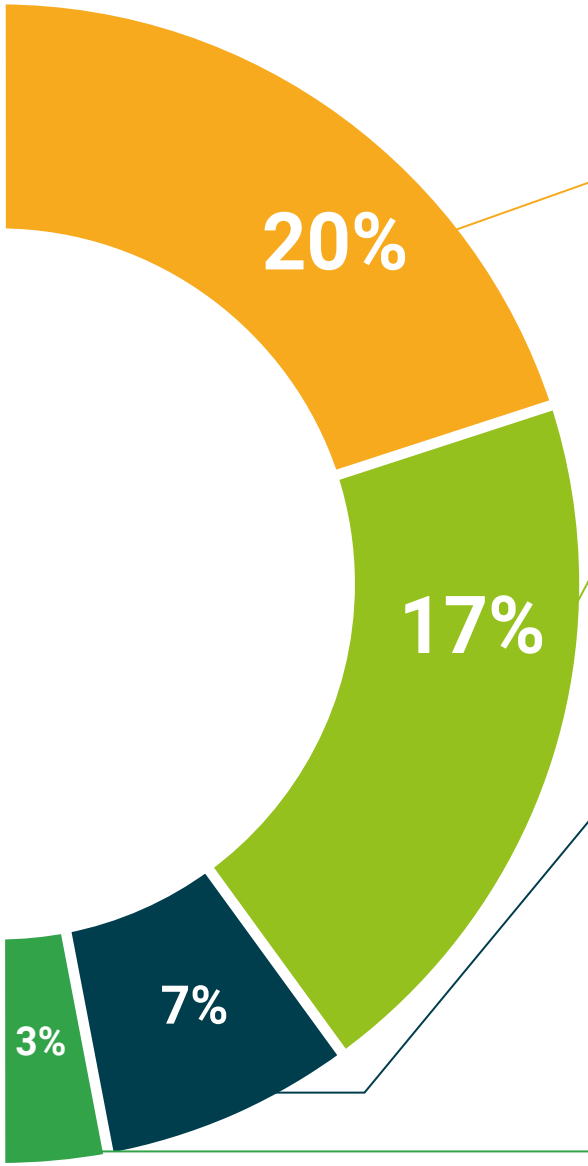
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".

Additional Reading

Recent articles, consensus documents, international guides. in our virtual library you will have access to everything you need to complete your training.





Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, we will present you with real case developments in which the expert will guide you through focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.

Testing & Re-Testing

We periodically evaluate and re-evaluate your knowledge throughout the program, through assessment and self-assessment activities and exercises: so that you can see how you are achieving your goals.

Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an expert strengthens knowledge and memory, and generates confidence in our difficult future decisions.

Quick Action Guides

We offer you the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help you progress in your learning.

06

Certificate

The Postgraduate Certificate in Spinal Tumors guarantees you, in addition to the most rigorous and up-to-date training, access to a Postgraduate Certificate issued by TECH Global University.

Include in your training a Postgraduate Certificate in Spinal Tumors: a highly qualified added value for any professional in the field of medicine"

This program will allow you to obtain your **Postgraduate Certificate in Spinal Tumors** endorsed by **TECH Global University**, the world's largest online university.

TECH Global University is an official European University publicly recognized by the Government of Andorra (***official bulletin***). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Spinal Tumors**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**


tech global university

Mr./Ms. _____, with identification document _____
has successfully passed and obtained the title of:

Postgraduate Certificate in Spinal Tumors

This is a program of 180 hours of duration equivalent to 6 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024

Dr. Pedro Navarro Illana
Rector

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

*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH Global University will make the necessary arrangements to obtain it, at an additional cost.

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Postgraduate Certificate

Spinal Tumors

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- Exams: **online**

Postgraduate Certificate

Spinal Tumors

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