

Postgraduate Diploma

Update on Urolithiasis





Postgraduate Diploma Update on Urolithiasis

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Accreditation: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtitude.com/us/medicine/postgraduate-diploma/postgraduate-diploma-update-urolithiasis

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01

Introduction to the Program

The formation of Kidney Stones is one of the most prevalent diseases in urological practice, affecting approximately 10% of the world's adult population. However, technological advances driven by Industry 4.0 offer specialists a variety of tools to optimize the efficiency of their therapies. For this reason, it is essential that physicians remain at the forefront of this field in order to adopt the most modern minimally invasive therapies in their clinical practice to guarantee a substantial improvement in the patients' condition. In this context, TECH has created an exclusive university program focused on the Update on Urolithiasis. In addition, it is taught in a convenient online modality. In addition, it is taught in a convenient online modality.



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With this 100% online Postgraduate Diploma, you will master the most innovative Minimally Invasive Techniques for the optimal approach to Urolithiasis”

Urolithiasis affects approximately 1 in 11 people worldwide, according to a recent study by the World Health Organization. This condition is one of the main causes of acute pain and medical consultations in the urological field, with a prevalence that has increased by 15% in the last decade. In response to this growing incidence, innovations in diagnosis and treatment have been essential to improve clinical outcomes and reduce associated morbidity.

For this reason, TECH presents an innovative Postgraduate Diploma in Update on Urolithiasis. Developed by leading experts in the field, the syllabus will delve into issues ranging from metabolic fundamentals and methods for identifying patients at risk of urological conditions to the use of Retrograde Intrarenal Surgery. As a result, graduates will acquire advanced clinical skills to efficiently treat urolithiasis, implement cutting-edge surgical techniques and optimize resource management in clinical settings. Furthermore, they will be highly skilled in designing and evaluating personalized therapeutic protocols.

In addition, the university qualification is 100% online, providing medical professionals with the flexibility they need to adapt to their schedules. In addition, TECH's exclusive Relearning system will facilitate effective and rigorous updating. In line with this, graduates will find numerous multimedia pills on the Virtual Campus in formats such as explanatory videos, interactive summaries or specialized readings based on the latest scientific evidence. All this will ensure that specialists enjoy an immersive, dynamic and enjoyable experience that will help maximize the quality of their usual clinical practice.

This **Postgraduate Diploma in Update on Urolithiasis** contains the most complete and up-to-date scientific program on the market. Its most notable features are:

- ♦ The development of case studies presented by experts in Urology
- ♦ The graphic, schematic and eminently practical contents with which it is conceived gather scientific and practical information on those disciplines that are indispensable for professional practice
- ♦ Practical exercises where the process of self-assessment can be used to improve learning
- ♦ Its special emphasis on innovative methodologies
- ♦ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



You will lead multidisciplinary work teams, promoting a collaborative environment focused on excellence in the management of Kidney Stones”

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You will delve into the most modern strategies to personalize patient care, guaranteeing top-notch attention”

The program's teaching staff includes professionals from the field who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive education programmed to prepare for real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise during the course. For this purpose, students will be assisted by an innovative interactive video system created by renowned and experienced experts.

You will learn to use analytical tools to rigorously interpret clinical data, which will facilitate informed decision making.

You will update your knowledge at your own pace and without time constraints through the innovative Relearning system that TECH provides.



02

Why Study at TECH?

TECH is the world's largest online university. With an impressive catalog of more than 14,000 university programs available in 11 languages, it is positioned as a leader in employability, with a 99% job placement rate. In addition, it relies on an enormous faculty of more than 6,000 professors of the highest international renown.



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Study at the world's largest online university and guarantee your professional success. The future starts at TECH”

The world's best online university, according to FORBES

The prestigious Forbes magazine, specialized in business and finance, has highlighted TECH as "the best online university in the world" This is what they have recently stated in an article in their digital edition in which they echo the success story of this institution, "thanks to the academic offer it provides, the selection of its teaching staff, and an innovative learning method oriented to form the professionals of the future".

The best top international faculty

TECH's faculty is made up of more than 6,000 professors of the highest international prestige. Professors, researchers and top executives of multinational companies, including Isaiah Covington, performance coach of the Boston Celtics; Magda Romanska, principal investigator at Harvard MetaLAB; Ignacio Wistumba, chairman of the department of translational molecular pathology at MD Anderson Cancer Center; and D.W. Pine, creative director of TIME magazine, among others.

The world's largest online university

TECH is the world's largest online university. We are the largest educational institution, with the best and widest digital educational catalog, one hundred percent online and covering most areas of knowledge. We offer the largest selection of our own degrees and accredited online undergraduate and postgraduate degrees. In total, more than 14,000 university programs, in ten different languages, making us the largest educational institution in the world.



The most complete syllabuses on the university scene

TECH offers the most complete syllabuses on the university scene, with programs that cover fundamental concepts and, at the same time, the main scientific advances in their specific scientific areas. In addition, these programs are continuously updated to guarantee students the academic vanguard and the most demanded professional skills. and the most in-demand professional competencies. In this way, the university's qualifications provide its graduates with a significant advantage to propel their careers to success.

A unique learning method

TECH is the first university to use Relearning in all its programs. This is the best online learning methodology, accredited with international teaching quality certifications, provided by prestigious educational agencies. In addition, this innovative academic model is complemented by the "Case Method", thereby configuring a unique online teaching strategy. Innovative teaching resources are also implemented, including detailed videos, infographics and interactive summaries.

The official online university of the NBA

TECH is the official online university of the NBA. Thanks to our agreement with the biggest league in basketball, we offer our students exclusive university programs, as well as a wide variety of educational resources focused on the business of the league and other areas of the sports industry. Each program is made up of a uniquely designed syllabus and features exceptional guest hosts: professionals with a distinguished sports background who will offer their expertise on the most relevant topics.

Leaders in employability

TECH has become the leading university in employability. Ninety-nine percent of its students obtain jobs in the academic field they have studied within one year of completing any of the university's programs. A similar number achieve immediate career enhancement. All this thanks to a study methodology that bases its effectiveness on the acquisition of practical skills, which are absolutely necessary for professional development.



Google Premier Partner

The American technology giant has awarded TECH the Google Premier Partner badge. This award, which is only available to 3% of the world's companies, highlights the efficient, flexible and tailored experience that this university provides to students. The recognition not only accredits the maximum rigor, performance and investment in TECH's digital infrastructures, but also places this university as one of the world's leading technology companies.



The top-rated university by its students

Students have positioned TECH as the world's top-rated university on the main review websites, with a highest rating of 4.9 out of 5, obtained from more than 1,000 reviews. These results consolidate TECH as the benchmark university institution at an international level, reflecting the excellence and positive impact of its educational model.



03 Syllabus

The syllabus of this Postgraduate Diploma in Update on Urolithiasis offers a complete specialization that covers everything from the fundamentals of the disease to the most advanced surgical techniques. Throughout 3 comprehensive modules, physicians will delve into the keys to skillfully managing cutting-edge technological tools including laser lithotripsy, percutaneous nephrolithotomy, and robotic surgery. In this way, graduates will develop advanced clinical skills to perform surgical procedures with maximum efficiency and safety.



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You will apply modern surgical techniques to the treatment of Urolithiasis, reducing recovery time and risk of complications”

Module 1. Medical Screening of Patients with Renal Lithiasis

- 1.1. Metabolic Screening
 - 1.1.1. The Metabolic Screening
 - 1.1.2. How and When to Perform the Metabolic Screening
 - 1.1.3. Indications for the Metabolic Screening: Who Should Undergo the Screening
- 1.2. Classification of Patients at Risk of Urolithiasis: High-Risk Patients
 - 1.2.1. Intrinsic, Extrinsic and Favorable Factors
 - 1.2.2. Population at Risk
 - 1.2.3. Categories of Stone-Forming Patients
 - 1.2.3.1. Specific Risk Factors for Stone Formation
- 1.3. Medical Treatment of Idiopathic Hypercalciuria
 - 1.3.1. Assessment of the Patient with Idiopathic Hypercalciuria
 - 1.3.2. Dietary Treatment
 - 1.3.3. Drug Treatment: Thiazides
- 1.4. Primary and Secondary Hyperparathyroidism
 - 1.4.1. Pathophysiology of Primary and Secondary Hyperparathyroidism
 - 1.4.2. Differential Diagnosis of Hyperparathyroidism
 - 1.4.3. Clinical Management of Hyperparathyroidism in the Context of Urolithiasis
- 1.5. Primary Hyperoxaluria and Nephrocalcinosis
 - 1.5.1. Etiology
 - 1.5.2. Diagnostic Approach
 - 1.5.3. Treatment
- 1.6. Primary and Secondary Hyperoxaluria. Dietary and Enteral
 - 1.6.1. Etiology of Hyperoxalurias
 - 1.6.2. Diagnostic Approach to Hyperoxalurias
 - 1.6.3. Treatment of Hyperoxalurias
 - 1.6.4. Specific Treatments for Primary Hyperoxaluria
- 1.7. Hypocitraturia
 - 1.7.1. Pathophysiology and Causes of Hypocitraturia
 - 1.7.2. Relevance of Hypocitraturia in the Formation of Kidney Stones
 - 1.7.3. Assessment and Treatment of Hypocitraturia in Patients with Urolithiasis



- 1.8. Hyperuricosuria
 - 1.8.1. Pathophysiology and Causes of Uricosuria
 - 1.8.2. Impact of Uricosuria on the Formation of Kidney Stones
 - 1.8.3. Assessment and Management Strategies for Uricosuria
- 1.9. Renal Tubular Acidosis
 - 1.9.1. Types of Tubular Acidosis
 - 1.9.2. Etiology and Pathophysiology of Distal Renal Tubular Acidosis
 - 1.9.3. Diagnosis of Distal Renal Tubular Acidosis
 - 1.9.4. Treatment of Distal Renal Tubular Acidosis
- 1.10. Patient Dietary Management
 - 1.10.1. Patient Dietary Management
 - 1.10.2. Water Intake
 - 1.10.3. Dietary Treatment of the Main Alterations in Urinary Excretion
 - 1.10.3.1. Dietary Treatment of Hypercalciuria
 - 1.10.3.2. Dietary Treatment of Hyperoxaluria
 - 1.10.3.3. Dietary Treatment of Hyperuricosuria
 - 1.10.3.4. Dietary Treatment of Hypocitraturia
 - 1.10.4. Dietary Recommendations at the Extreme Ages of Life
 - 1.10.4.1. Dietary Recommendations for Children with Lithogenic Kidney Stones
 - 1.10.4.2. Dietary Recommendations for Elderly People with Lithogenic Kidney Stones

Module 2. Clinical Presentation of Renal Lithiasis

- 2.1. Renal Physiology
 - 2.1.1. Renal Physiology
 - 2.1.2. Estimated Glomerular Filtration Rate
 - 2.1.3. Kidney Pathophysiology
- 2.2. Pathophysiology of Acute Obstruction
 - 2.2.1. Pathophysiology at the Cortical Level
 - 2.2.2. Pathophysiology at the Medullary Level
 - 2.2.3. Pathophysiology at the Renoureteral Level
- 2.3. Pathophysiology of Chronic Obstruction
 - 2.3.1. Pathophysiology at the Cortical Level
 - 2.3.2. Pathophysiology at the Medullary Level
 - 2.3.3. Pathophysiology at the Renoureteral Level
- 2.4. Imaging Studies in Renal Lithiasis
 - 2.4.1. Plain and Contrast Radiography
 - 2.4.2. Ultrasound, Magnetic Resonance Imaging, Computed Tomography
 - 2.4.3. Functional Tests: Renogram, Whitaker Test
- 2.5. Clinical Features, Diagnosis and Treatment of Uncomplicated Renal Colic
 - 2.5.1. Clinical Features of Uncomplicated Renal Colic
 - 2.5.2. Diagnosis
 - 2.5.3. Treatment
- 2.6. Treatment of Complicated Renal Colic
 - 2.6.1. Diagnosis
 - 2.6.2. Urinary Diversion
 - 2.6.3. Other Measures
- 2.7. Types of Double J Catheters
 - 2.7.1. Evolution Over Time of Double J Ureteral Catheters
 - 2.7.2. Indications, Complications and Adverse Effects
 - 2.7.3. New Designs of Ureteral Catheters. Biodegradable and Drug-Releasing
- 2.8. Renal Lithiasis, Infection and Sepsis
 - 2.8.1. Risk of Infection and Sepsis in Renal Lithiasis (Non-struvite)
 - 2.8.2. Diagnostic Techniques
 - 2.8.3. Recommendations for Management and Treatment
- 2.9. Patient Follow-up after Urinary Kidney Stone
 - 2.9.1. Epidemiology and Impact of Renal Colic
 - 2.9.2. Expulsive Treatment: Evidence and Opportunity Cost
 - 2.9.3. Patient Management in Special Situations
- 2.10. Clinical Guidelines Applied to Renal Colic
 - 2.10.1. European Guidelines
 - 2.10.2. American Guidelines
 - 2.10.3. Publications in PubMed

Module 3. Retrograde Intrarenal Surgery

- 3.1. Flexible Ureteroscopy. Evolution Over Time
 - 3.1.1. History of the Ureteroscopy
 - 3.1.2. Evolution of Ureteroscopy
 - 3.1.3. Present of the Ureteroscopy
- 3.2. Flexible Ureteroscopy Indications and Extended Indications
 - 3.2.1. Standard Indications for Retrograde Intrarenal Surgery
 - 3.2.2. Extended Indications for Retrograde Intrarenal Surgery
 - 3.2.3. Future Indications for Retrograde Intrarenal Surgery
- 3.3. Material in Flexible Ureteroscopy
 - 3.3.1. Instrumentation Material
 - 3.3.2. Ureteral Access Sheaths
 - 3.3.3. Endoscopic Baskets and Other Work Materials
- 3.4. Standard Technique for Retrograde and Antegrade Flexible Ureteroscopy in Urolithiasis
 - 3.4.1. Patient Positioning for Flexible URS
 - 3.4.2. Surgical Technique and Tricks
 - 3.4.3. Postoperative Urinary Diversion: When and How
- 3.5. Types of Flexible Ureteroscopes
 - 3.5.1. Fiber-Optic vs. Digital Ureteroscopes
 - 3.5.2. Reusable and Disposable Ureteroscopes
 - 3.5.3. Aspiration in Flexible Ureteroscopy
- 3.6. Laser in Flexible Ureteroscopy
 - 3.6.1. Laser Fragmentation and Vaporization Techniques in Flexible Ureteroscopy
 - 3.6.2. Optimization of Laser Parameters for the Treatment of Lithiasis in Flexible Ureteroscopy
 - 3.6.3. Safety in the Management of Ureteral Stones
- 3.7. Intrarenal Pressure and Temperature in Flexible Ureteroscopy
 - 3.7.1. Pressure and Temperature in Retrograde Intrarenal Surgery
 - 3.7.2. Complications Attributed to Intrarenal Pressure and Temperature During Retrograde Intrarenal Surgery
 - 3.7.3. Methods of Measuring Intrarenal Temperature and Pressure in Retrograde Intrarenal Surgery





- 3.7.4. Methods of Irrigation of Intrarenal Temperature and Pressure in Retrograde Intrarenal Surgery
- 3.7.5. Optimal Management of Intrarenal Temperature and Pressure during Retrograde Intrarenal Surgery
- 3.7.6. Future of Retrograde Intrarenal Surgery in Intrarenal Temperature and Pressure
- 3.8. ALARA in Flexible Ureteroscopy
 - 3.8.1. Radiation in Retrograde Intrarenal Surgery
 - 3.8.2. Radiation Complications in Patients and Healthcare Personnel
 - 3.8.3. ALARA Applied to Retrograde Intrarenal Surgery
 - 3.8.4. Strategies for Applying ALARA in Retrograde Intrarenal Surgery
 - 3.8.5. Fluoroscopy-free Retrograde Intrarenal Surgery
- 3.9. Complications and Postoperative Management in Flexible Ureteroscopy
 - 3.9.1. Flexible Ureteroscopy. Postoperative Care
 - 3.9.2. Early and Late Diagnosis of Postoperative Complications
 - 3.9.3. Treatment and Prevention of Complications
- 3.10. The Future of Flexible Ureteroscopy
 - 3.10.1. Suction in Flexible Ureteroscopy
 - 3.10.2. Pressure in Flexible Ureteroscopy
 - 3.10.3. Laser in Flexible Ureteroscopy



The emphasis on real urological clinical cases that you will be able to analyze will help you enormously in contextualizing the entire university program"

04

Teaching Objectives

The teaching materials for this very comprehensive university qualification will provide practitioners with holistic knowledge about the diagnosis and treatment of Urinary Stones. Graduates will develop skills in the application of minimally invasive techniques, the integration of innovative technologies into clinical practice and the design of efficient therapeutic protocols. In addition, they will be highly prepared to evaluate and optimize clinical processes, personalize patient care and allocate resources effectively.



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You will efficiently manage the resources available in clinical centers, prioritizing patient care and raising safety standards”



General Objectives

- ♦ Identify the fundamental physical and chemical aspects involved in the formation of kidney stones
- ♦ Delve into the classification of kidney stones according to the etiological factors that generate them
- ♦ Establish the diagnostic foundations based on the study of kidney stones
- ♦ Determine the key diagnostic aspects based on the study of urine
- ♦ Delve into the metabolic study of patients with renal lithiasis
- ♦ Define the classifications of patients at risk of Urolithiasis, considering factors that may contribute to the formation of stones
- ♦ Assess the various associated metabolic conditions and their specific treatments
- ♦ Acquire a comprehensive approach to the dietary and clinical management of the lithiasic patient
- ♦ Address the etiology and pathophysiology of non-calcium lithiasis, identifying its distinctive characteristics
- ♦ Define the medical treatment options available for each type of condition
- ♦ Assess the role of genetics and microbiota in the management of Urolithiasis
- ♦ Establish guidelines for pH control and coordination of Urolithiasis units
- ♦ Evaluate renal physiology and pathophysiology, as well as the mechanisms of obstruction
- ♦ Delve into the most widely used diagnostic imaging methods in Renal Lithiasis
- ♦ Define therapeutic approaches to renal colic
- ♦ Identify the complications associated with lithiasis and propose management strategies based on international clinical guidelines
- ♦ Analyze the historical evolution of Extracorporeal Shock Wave Lithotripsy
- ♦ Assess the physical principles, types of energy and those of Extracorporeal Shock Wave Lithotripsy
- ♦ Examine the results, complications and post-procedure follow-up, as well as the latest advances in this technology
- ♦ Establish recommendations based on clinical guidelines and develop radiation protection strategies in the context of Endourology
- ♦ Analyze the historical evolution of endourology and its current applications, focusing on technological and surgical advances
- ♦ Examine renal and ureteral anatomy relevant to endourology, establishing its importance in the execution of procedures
- ♦ Assess the criteria for the selection of surgical techniques and energy sources in Endourology
- ♦ Identify the endourological approaches and specific equipment used in semirigid ureteroscopy
- ♦ Delve into the historical evolution of flexible ureteroscopy and its development
- ♦ Evaluate the standard and extended indications for Retrograde Intrarenal Surgery
- ♦ Examine the materials, surgical techniques and advanced technologies used in Retrograde Intrarenal Surgery
- ♦ Identify intraoperative and postoperative complications, establishing strategies for their prevention and management, with a focus on the application of ALARA principles
- ♦ Analyze the different patient positions in percutaneous nephrolithotomy

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Specific Objectives

Module 1. Medical Screening of Patients with Renal Lithiasis

- Define the criteria for carrying out metabolic studies in patients with Renal Lithiasis
- Identify the risk factors linked to the formation of Stones in order to classify patients efficiently
- Manage the main medical treatment strategies for different metabolic conditions
- Achieve a dietary and drug-based approach in the comprehensive management of patients with lithiasis, based on scientific evidence

Module 2. Clinical Presentation of Renal Lithiasis

- Analyze renal physiology and pathophysiology related to Lithiasis
- Master imaging techniques and functional tests in the diagnosis of Renal Colic
- Determine the criteria for the treatment of the different types of Renal Colic and its complications
- Identify and apply international clinical guidelines in the management of patients with Renal Lithiasis

Module 3. Retrograde Intrarenal Surgery

- Define the indications and limitations of the different types of flexible ureteroscopes
- Analyze surgical techniques and the management of intraoperative variables such as pressure or temperature
- Examine the use of lasers and evaluate their effectiveness in the fragmentation of kidney stones
- Establish measures to reduce exposure to radiation and manage intraoperative complications

05

Career Opportunities

This Postgraduate Diploma in Update on Urolithiasis provides an exceptional opportunity for physicians who wish to specialize and update their knowledge in the treatment of Urinary Stones. Using innovative teaching resources, graduates will master the most advanced technologies and apply the latest scientific evidence in Urology. As a result, professionals will improve the quality of their clinical practice and expand their job opportunities, being prepared to take on strategic roles of greater responsibility.



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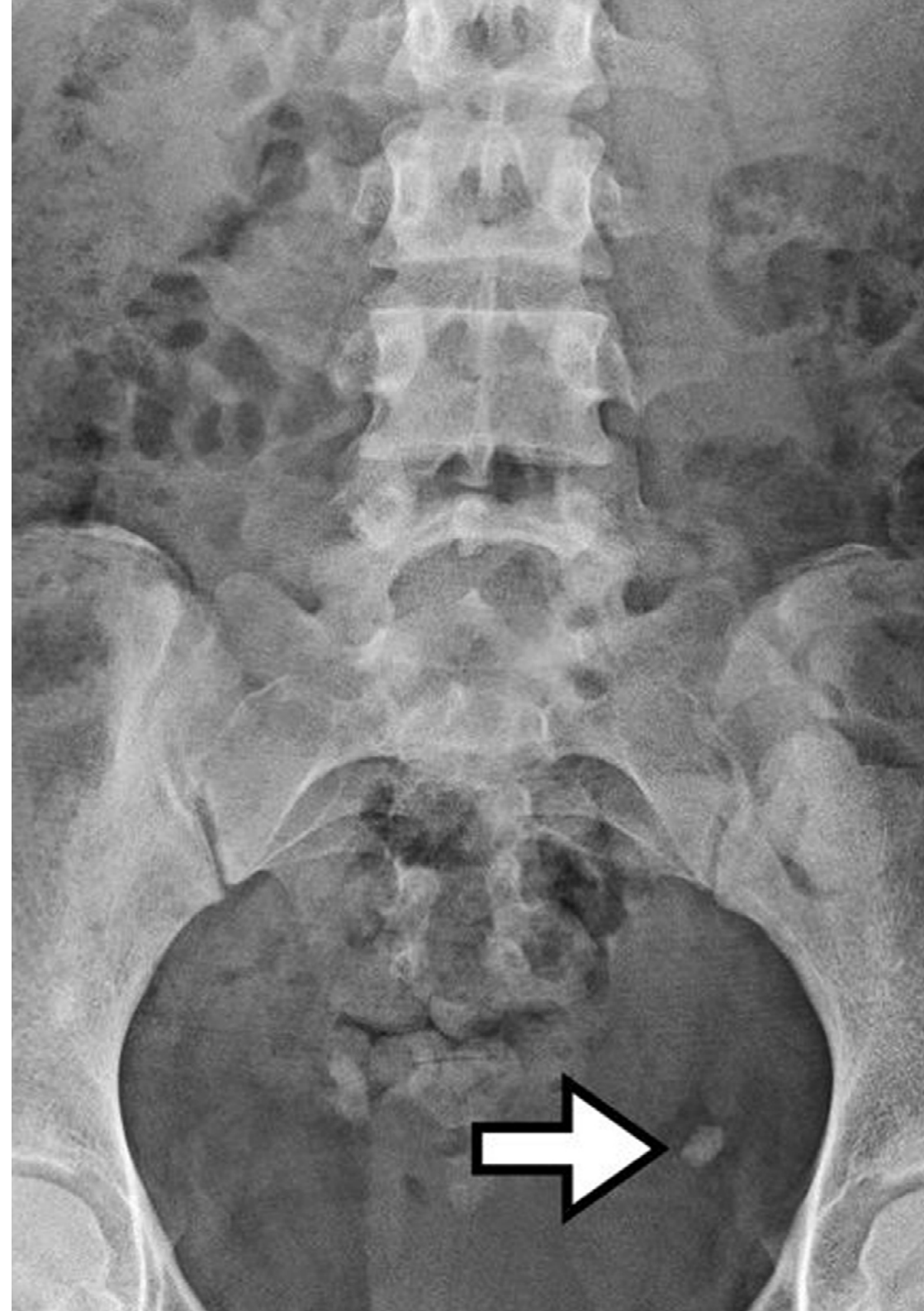
You will head the Urolithiasis Department in any healthcare institution, guaranteeing that the treatments excel in both their excellent quality and efficiency"

Graduate Profile

Specialists in this university qualification will stand out for their skills in the diagnosis and advanced treatment of Urolithiasis. They will also have a high level of specialization that will enable them to incorporate the most innovative minimally invasive techniques in clinical environments, improving patient care and optimizing resource management. They will also develop skills in designing, implementing and assessing clinical protocols that improve therapeutic processes. This will enable them to personalize care and effectively monitor patients' progress in real time.

You will focus on the use of Advanced Robotic Systems to perform Kidney Stone Surgery with less invasiveness and greater precision.

- ♦ **Clinical Problem Solving:** Ability to apply critical thinking in the identification and solution of challenges associated with the management of Urinary Stones, optimizing treatments through advanced approaches
- ♦ **Technological Adaptation in Urology:** Ability to incorporate the latest technologies in the diagnosis and treatment of urolithiasis, improving both the efficiency and quality of patient care
- ♦ **Ethical Commitment and Data Security:** Responsibility in the application of ethical principles and privacy regulations, guaranteeing the protection of patient data when using emerging technologies
- ♦ **Research and Innovation:** Competence to lead research and development projects in the field of Urolithiasis, promoting the progress of clinical practices based on scientific evidence



After completing the program, you will be able to use your knowledge and skills in the following positions:

- 1. Urologist specialized in Minimally Invasive Procedures:** Performs advanced interventions for the treatment of Urinary Stones, using minimally invasive techniques that reduce recovery time and improve clinical outcomes.
- 2. Specialist in Prevention and Management of Urinary Stones:** Focuses on disease prevention and comprehensive patient management to reduce recurrence
- 3. Clinical Innovation Supervisor in Urolithiasis:** Leads projects that incorporate new technologies and innovative approaches in the treatment of Urolithiasis, improving the quality of medical care
- 4. Teleurology Expert:** Uses digital platforms to offer remote consultations and follow-up to patients with Urolithiasis, improving access and continuity of care.
- 5. Coordinator of Multidisciplinary Care in Urolithiasis:** Facilitates collaboration between different medical specialties to offer a comprehensive approach to the treatment of patients with Urinary Tract Conditions
- 6. Urolithiasis Management Consultant:** Advises healthcare institutions on the implementation of protocols and strategies for the optimal treatment of patients with Urinary Diseases
- 7. Clinical Researcher in Urolithiasis:** Dedicated to conducting clinical studies and trials to develop and assess new therapies in the treatment of Urolithiasis



You will develop comprehensive programs for the prevention of Kidney Stones, promoting healthy practices in society"

06

Study Methodology

TECH is the world's first university to combine the **case study** methodology with **Relearning**, a 100% online learning system based on guided repetition.

This disruptive pedagogical strategy has been conceived to offer professionals the opportunity to update their knowledge and develop their skills in an intensive and rigorous way. A learning model that places students at the center of the educational process giving them the leading role, adapting to their needs and leaving aside more conventional methodologies.



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TECH will prepare you to face new challenges in uncertain environments and achieve success in your career”

The student: the priority of all TECH programs

In TECH's study methodology, the student is the main protagonist.

The teaching tools of each program have been selected taking into account the demands of time, availability and academic rigor that, today, not only students demand but also the most competitive positions in the market.

With TECH's asynchronous educational model, it is students who choose the time they dedicate to study, how they decide to establish their routines, and all this from the comfort of the electronic device of their choice. The student will not have to participate in live classes, which in many cases they will not be able to attend. The learning activities will be done when it is convenient for them. They can always decide when and from where they want to study.

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*At TECH you will NOT have live classes
(which you might not be able to attend)”*



The most comprehensive study plans at the international level

TECH is distinguished by offering the most complete academic itineraries on the university scene. This comprehensiveness is achieved through the creation of syllabi that not only cover the essential knowledge, but also the most recent innovations in each area.

By being constantly up to date, these programs allow students to keep up with market changes and acquire the skills most valued by employers. In this way, those who complete their studies at TECH receive a comprehensive education that provides them with a notable competitive advantage to further their careers.

And what's more, they will be able to do so from any device, pc, tablet or smartphone.

“*TECH's model is asynchronous, so it allows you to study with your pc, tablet or your smartphone wherever you want, whenever you want and for as long as you want*”

Case Studies and Case Method

The case method has been the learning system most used by the world's best business schools. Developed in 1912 so that law students would not only learn the law based on theoretical content, its function was also to present them with real complex situations. In this way, they could make informed decisions and value judgments about how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

With this teaching model, it is students themselves who build their professional competence through strategies such as Learning by Doing or Design Thinking, used by other renowned institutions such as Yale or Stanford.

This action-oriented method will be applied throughout the entire academic itinerary that the student undertakes with TECH. Students will be confronted with multiple real-life situations and will have to integrate knowledge, research, discuss and defend their ideas and decisions. All this with the premise of answering the question of how they would act when facing specific events of complexity in their daily work.



Relearning Methodology

At TECH, case studies are enhanced with the best 100% online teaching method: Relearning.

This method breaks with traditional teaching techniques to put the student at the center of the equation, providing the best content in different formats. In this way, it manages to review and reiterate the key concepts of each subject and learn to apply them in a real context.

In the same line, and according to multiple scientific researches, reiteration is the best way to learn. For this reason, TECH offers between 8 and 16 repetitions of each key concept within the same lesson, presented in a different way, with the objective of ensuring that the knowledge is completely consolidated during the study process.

Relearning 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.



A 100% online Virtual Campus with the best teaching resources

In order to apply its methodology effectively, TECH focuses on providing graduates with teaching materials in different formats: texts, interactive videos, illustrations and knowledge maps, among others. All of them are designed by qualified teachers who focus their work on combining real cases with the resolution of complex situations through simulation, the study of contexts applied to each professional career and learning based on repetition, through audios, presentations, animations, images, etc.

The latest scientific evidence in the field of Neuroscience points to the importance of taking into account the place and context where the content is accessed before starting a new learning process. Being able to adjust these variables in a personalized way helps people to remember and store knowledge in the hippocampus to retain it in the long term. This is a model called Neurocognitive context-dependent e-learning that is consciously applied in this university qualification.

In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

Likewise, this very complete Virtual Campus will allow TECH students to organize their study schedules according to their personal availability or work obligations. In this way, they will have global control of the academic content and teaching tools, based on their fast-paced professional update.



The online study mode of this program will allow you to organize your time and learning pace, adapting it to your schedule"

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

1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that assess real situations and the application of knowledge.
2. Learning is solidly translated into 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.

The university methodology top-rated by its students

The results of this innovative teaching model can be seen in the overall satisfaction levels of TECH graduates.

The students' assessment of the teaching quality, the quality of the materials, the structure of the program and its objectives is excellent. Not surprisingly, the institution became the top-rated university by its students according to the global score index, obtaining a 4.9 out of 5.

Access the study contents from any device with an Internet connection (computer, tablet, smartphone) thanks to the fact that TECH is at the forefront of technology and teaching.

You will be able to learn with the advantages that come with having access to simulated learning environments and the learning by observation approach, that is, Learning from an expert.



As such, the best educational materials, thoroughly prepared, will be available in this program:



Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly 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.



Practicing Skills and Abilities

You will carry out activities to develop specific competencies and skills in each thematic field. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop within the framework of the globalization we live in.



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.

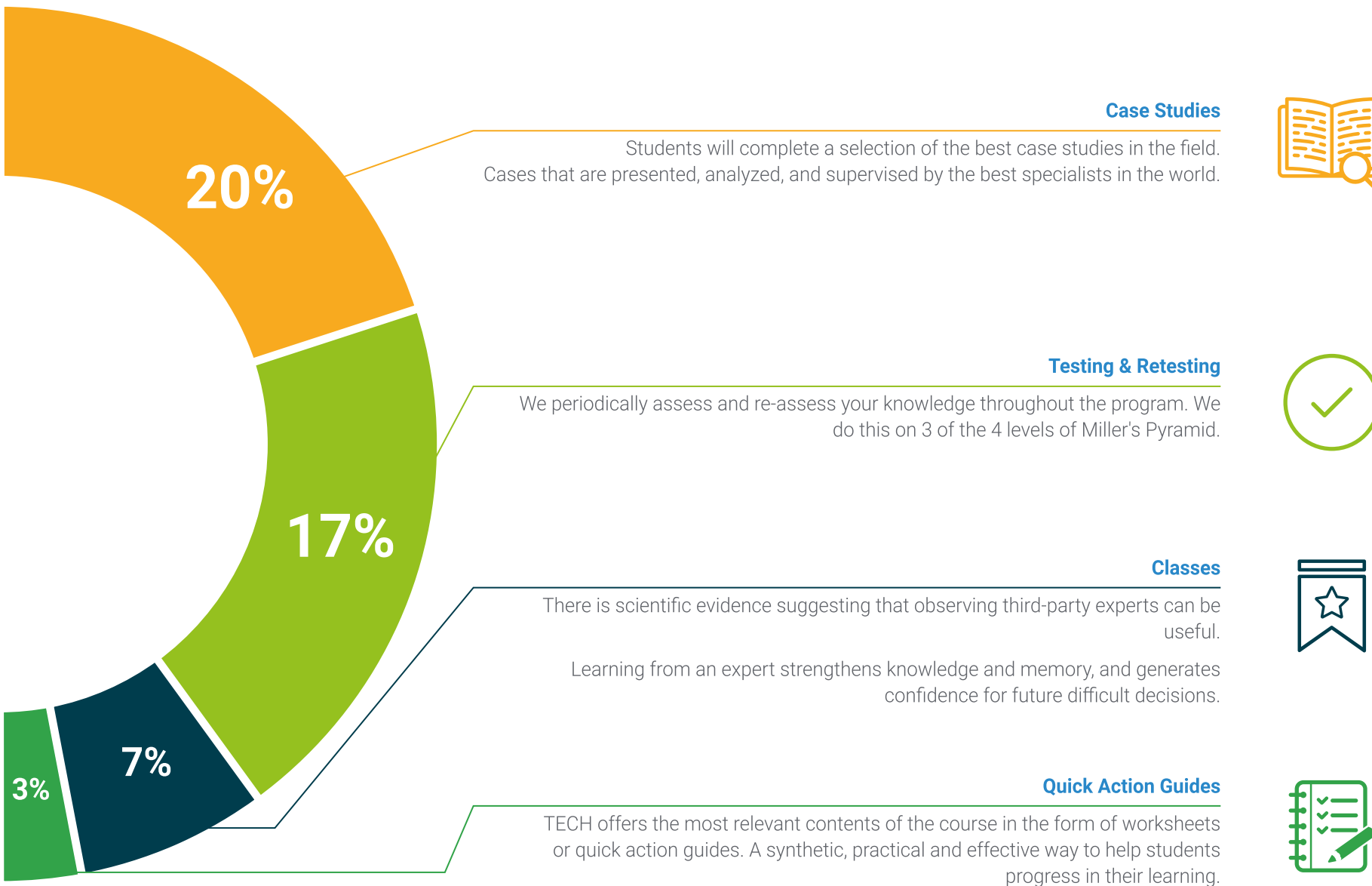
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



Additional Reading

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07

Teaching Staff

In its commitment to offer the most comprehensive and up-to-date university programs on the market, TECH carries out a meticulous process to select its teaching staff. Thanks to such a careful selection process, this Postgraduate Diploma has the participation of renowned specialists in the field of Urology. These professionals have extensive work experience, where they have balanced their clinical work with their role as researchers. In this way, they have optimized the general well-being of many patients with urological conditions. Graduates therefore have the guarantees they need to immerse themselves in an experience that will raise the quality of their clinical practice.





“

You will benefit from a syllabus designed by true experts in the treatment of Urolithiasis, who will provide you with personalized guidance throughout the program"

Management



Dr. Servera Ruiz de Velasco, Antonio

- Director of Endourology and Lithiasis at the Hospital of Manacor
- Urology Specialist at Juaneda Miramar Hospital
- Internship in Laparoscopic Pelvic and Retroperitoneal Surgery at Heidelberg University Hospital
- Scientific Researcher
- Director of 6 international Clinical Trials
- Internship in Robotic Surgery at the Institut Mutualiste Montsouris
- Internship in Laparoscopic and Percutaneous Surgery at the Italian Hospital of Buenos Aires
- PhD in Health Sciences from the University of the Balearic Islands
- Degree in Medicine and Surgery from the University of Zaragoza
- Member of the European College of Urology

Professors

Dr. Mainez Rodríguez, Juan Antonio

- ♦ Urologist at La Paz University Hospital
- ♦ Director of International Cooperation of the Spanish Association of Urology
- ♦ Urologist at La Milagrosa Hospital
- ♦ Clinical Researcher
- ♦ Internship in Lithiasis and Endourology at Bautista Hospital Medical Center
- ♦ Residency in Urology at the Río Hortega University Hospital
- ♦ Bachelor of Medicine from the Complutense University of Madrid
- ♦ Member of the European Society of Urology

Dr. Cancini Azuaje, Miguel Alejandro

- ♦ Urologist at Nuestra Señora del Prado General University Hospital
- ♦ Physician in the Urology Department at Parque Marazuela Hospital
- ♦ Urology Specialist at Campo Arañuelo Regional Hospital
- ♦ Internship in Endoscopic Surgery and Laparoscopy at the University of Carabobo
- ♦ Residency at Dr. Egor Nucete General Hospital
- ♦ Postgraduate in Urology at Hospital Universitario de los Andes
- ♦ Master's Degree in Minimally Invasive Urological Surgery at Centro Jesús Usón
- ♦ Bachelor's Degree in Medicine from the Rómulo Gallegos University
- ♦ Member of the World Venezuelan Urologists Association

Dr. Ortiz Arduán, Alberto

- ♦ Head of Nephrology and Hypertension at the Jiménez Díaz Foundation University Hospital
- ♦ Specialist in Nephrology
- ♦ Coordinator of the Spanish Renal Research Network
- ♦ Postdoctoral Researcher in Molecular Nephrology at the University of Pennsylvania
- ♦ Editor of the journal "Clinical Kidney Journal"
- ♦ Corresponding Academician of the Royal National Academy of Medicine of Spain
- ♦ PhD in Medicine from the Autonomous University of Madrid
- ♦ Master's Degree in Medical Management and Clinical Administration from UNED
- ♦ Bachelor's Degree in Medicine and Surgery from the Autonomous University of Madrid
- ♦ Member of: European Renal Association, Dutch Kidney Foundation, Madrid Nephrology Society and Editorial Board of the American Society of Nephrology

Dr. Martín Higuera, Cristina

- ♦ Researcher at the Institute of Experimental Immunology at the University Hospital of Bonn
- ♦ Founder of PHHP Team
- ♦ Scientific Consultant for Novo Nordisk
- ♦ Promoter of the European Association of Patients with Hyperoxaluria
- ♦ Biomedical Researcher at Orphan Biotech
- ♦ Advisor to Meta Pharmaceuticals
- ♦ PhD in Biomedical Sciences from the University of La Laguna
- ♦ Master's Degree in Molecular Biomedicine from the Autonomous University of Madrid
- ♦ Degree in Medicine from the University of La Laguna
- ♦ Bachelor's Degree in Biology from the University of La Laguna
- ♦ Member of the OxalEurope Foundation
- ♦ Certification in Animal Experimentation

Dr. Cansino Alcaide, Ramón

- ♦ Head of Section of Endourology and Lithiasis at La Paz University Hospital
- ♦ Urology Specialist at La Paz University Hospital
- ♦ Urologist at the University Hospital Vithas Madrid La Milagrosa
- ♦ Lecturer in Urology training courses and postgraduate studies.
- ♦ Regular speaker at European and Spanish Urologic Association Congresses
- ♦ Member of the International Urolithiasis Alliance
- ♦ Doctor of Medicine and Surgery from the Autonomous University of Madrid

Dr. Guimerá García, Jordi

- ♦ Medical Director of the Urology Clinic of Dr. Guimerá
- ♦ Specialist in Urology at Son Espases University Hospital
- ♦ Occupational Physician at Asepeyo
- ♦ Internship at the Miami Transplant Institute
- ♦ Urology residency at the Son Espases University Hospital
- ♦ PhD in Public Health and Prevalent Diseases from the University of the Balearic Islands
- ♦ Degree in Medicine from the Autonomous University of Madrid
- ♦ Certification as a Fellow of the European Board of Urology

Dr. Serrano Frango, Patricia

- ♦ Specialist in Urology at the Reina Sofia Hospital
- ♦ Specialist in Lithiasis and Endourology at the Miguel Servet University Hospital
- ♦ Evaluator for the Accreditation Committee of the Health Professions Commission of Aragon
- ♦ Clinical Researcher
- ♦ Doctor of Health Sciences from the University of Zaragoza
- ♦ Bachelor of Medicine and Surgery

Dr. Abad López, Pablo

- ♦ Physician in the Department of Urology at La Paz University Hospital
- ♦ Urologist at San Carlos Clinical Hospital
- ♦ Specialist in the treatment of renal, adrenal and retroperitoneal carcinoma
- ♦ Coordinator of the 4Doctors platform
- ♦ Editor of the scientific journal "Frontiers in Urology"
- ♦ Editor of the scientific journal "Archivos Españoles de Urología"
- ♦ Editor of the scientific journal "Urology Research and Practice"
- ♦ Creator of digital content for the Urology Cheat Sheets platform
- ♦ Residency in Urology at the 12 de Octubre University Hospital
- ♦ Master's Degree in Clinical Practice and Medical Professionalism from the University of Alcalá de Henares
- ♦ Master's Degree in Urooncology from the CEU - Cardenal Herrera University
- ♦ Master's Degree in Advanced Urinary Incontinence Surgery from the Complutense University of Madrid
- ♦ Master's Degree in Multidisciplinary Approach to Prostate Cancer from the Complutense University of Madrid
- ♦ Degree in Medicine from the Complutense University of Madrid

Dr. Kanashiro Azabache, Andrés Koei

- ♦ Physician in the Department of Urology, Kidney Transplantation and Lithiasis at the Puigvert Foundation
- ♦ Urology Physician at the Sant Jaume Regional Hospital in Calella
- ♦ Clinical Researcher
- ♦ Urology Consultant at the Asepeyo Clinic
- ♦ Urology Residency at the Puigvert Foundation
- ♦ Degree in Medicine and Surgery from the Cayetano Heredia University of Peru
- ♦ Certification as a Fellow of the European Board of Urology
- ♦ Member of: European Association of Urology and Spanish Association of Urology

Dr. Rivero Cárdenes, Alberto

- ♦ Director of Endourology at the University Hospital of Burgos
- ♦ Urologist at San Roque Hospitals
- ♦ Expert in Urinary Lithiasis
- ♦ Physician at Recoletas Burgos Hospital
- ♦ Clinical Researcher
- ♦ Residency in Urology at the Río Hortega University Hospital
- ♦ Degree in Medicine and Surgery from the University of Santiago de Compostela
- ♦ Member of: Spanish Society of Urology, European Association of Urology and Endourological Society

Dr. García Fadrique, Gonzalo

- ♦ Director of the Urologic Oncology Unit at Manises Hospital
- ♦ President of the Valencian Community Urology Association
- ♦ Expert in Laparoscopic Surgery
- ♦ Specialist Urology Physician at La Fe Hospital
- ♦ Clinical Researcher
- ♦ PhD in Health Sciences with specialization in Urology from the Catholic University of Valencia
- ♦ Master's Degree in Advanced Prostate Cancer from the University of Salamanca
- ♦ Bachelor's Degree in Medicine from the University of Valencia
- ♦ Certification as Fellow of the European Board of Urology
- ♦ Member of: European Association of Urology, Spanish Association of Urology and Association of Urology of the Valencian Community

Dr. Sanz del Pozo, Mónica

- ♦ Urologist at Miguel Servet University Hospital
- ♦ Physician at Quirón Zaragoza Clinic
- ♦ Pelvic Floor Specialist
- ♦ Lithiasis Residency at Puigvert Foundation
- ♦ Internship in Laparoscopy and Pediatric Surgery at the University Hospital Complex of Pontevedra
- ♦ PhD in Health Sciences from San Jorge University
- ♦ Master's Degree in Urologic Oncology from CEU Cardenal Herrera University
- ♦ Master's Degree in Clinical Medicine from Camilo José Cela University
- ♦ Degree in Medicine and Surgery from the Complutense University of Madrid

Dr. Sebastián González, Mariano

- ♦ Head of the Endourology, Lithiasis and Laser Section at the Italian Hospital of Buenos Aires
- ♦ Director of the Laser Area of the Urology Department at the Italian Hospital of Buenos Aires
- ♦ Specialist in Endourology and Lithiasis Diseases
- ♦ Staff Physician, Renal Transplant Section at the Italian Hospital of Buenos Aires
- ♦ Residency in Urology at the Italian Hospital of Buenos Aires
- ♦ PhD in Urology from the Argentine Society of Urology
- ♦ Degree in Medicine from the H.A. Barceló Foundation
- ♦ Member of: Argentine Society of Urology, Endourological Society, International Society of Urology, Ecuadorian Society of Urology, Venezuelan Society of Urology, Mexican Society of Urology and Urological Association of Central America and the Caribbean

Dr. Sureda Riera, Joan

- ♦ Urologist at the Hospital of Manacor
- ♦ Surgical SAP Instructor at the Clinical Hospital of Barcelona
- ♦ Specialist in Advanced Prostate Cancer Management
- ♦ Residency in Reconstructive Urology at the Urological Institute of London
- ♦ Master's Degree in Localized, Advanced and Metastatic Prostate Cancer from the University of Salamanca
- ♦ Master's Degree in Research Design and Analysis in Health Sciences from the Autonomous University of Barcelona
- ♦ Degree in Medicine and Surgery from the University of Barcelona
- ♦ Certification as a Fellow of the European Board of Urology
- ♦ Member of the Spanish Society of Radiation Oncology

Dr. Angerri, Oriol

- ♦ Head of the Lithiasis Unit of the Urology Service at the Puigvert Foundation
- ♦ Urologist at the Corachan Clinic
- ♦ Urology Physician at the Red Cross
- ♦ Specialist in Urology at Dexeus Clinic
- ♦ Physician in Internal Medicine, Surgery, Pediatrics and Gynecology at the Clinical Hospital of Barcelona
- ♦ Internship at Karolinska Institute of Sweden
- ♦ Internship in the Department of Urology at the University of Miami
- ♦ Residency in Urology at Puigvert Foundation, Barcelona
- ♦ PhD in Research Proficiency from the Autonomous University of Barcelona
- ♦ Master's Degree in Tissue Engineering from the University of Granada
- ♦ Bachelor's Degree in Medicine and Surgery from the University of Barcelona
- ♦ Member of: Spanish Association of Urology and European Association of Urology

Dr. Soria González, Federico

- ♦ Head of the Experimental Surgery Service at the Ramón y Cajal University Hospital
- ♦ President of the Animal Experimentation Ethics Committee
- ♦ Specialist in Endourology and Minimally Invasive Surgery applied to Urology
- ♦ Veterinarian at the Jesús Usón Minimally Invasive Surgery Center
- ♦ Clinical Researcher in Endoscopy at the Jesús Usón Minimally Invasive Surgery Center
- ♦ PhD in Animal Health and Medicine from the University of Extremadura
- ♦ Bachelor's Degree in Veterinary Medicine from the University of Extremadura
- ♦ Member of: Spanish Association of Veterinary Specialists in Small Animals, Spanish Society of Veterinary Surgery and Official College of Veterinarians

Dr. Mora Christian, Jorge Alberto

- ♦ Specialist in Lithiasis, Endourology and Functional Pathology in Clinical Urology Bilbao
- ♦ Doctor in the Urology Department at Cruces University Hospital
- ♦ Urologist at Galdakao-Usánsolo Hospital
- ♦ Specialist in Advanced Renal Surgery
- ♦ Residency in Urology at Cruces University Hospital
- ♦ PhD in Medicine and Surgery from the Central University of Venezuela
- ♦ Master's Degree in Update in Urological Surgery from the Cardenal Herrera University
- ♦ University Expert in Lower Urinary Tract Surgery from the Cardenal Herrera University
- ♦ Certification as a Fellow of the European Board of Urology



Dr. Emiliani Sanz, Esteban

- ◆ Doctor in the Lithiasis Unit at the Puigvert Foundation
- ◆ Editor of *"Actas Españolas de Urología"*
- ◆ Editor of *"World Journal of Urology"*
- ◆ Internship in Endourology and Lithiasis at Muljibhai Patel Urological Hospital
- ◆ Endourology and Kidney Stones Internship at Tenon Hospital
- ◆ Urology Residency at the Puigvert Foundation, Barcelona
- ◆ Degree in Medicine and Surgery from the Javeriana Pontifical University
- ◆ Certification as a Fellow of the European Board of Urology
- ◆ Member of: International Society of Urology and European Board of Urology Assessment Committee

Dr. Verri, Paolo

- ◆ Physician in the Department of Urology and Lithiasis at the Puigvert Foundation
- ◆ Urology Physician at the San Luigi Sanatorium
- ◆ Clinical Researcher
- ◆ Residency in Oncology and Renal Transplantation at the Puigvert Foundation
- ◆ PhD in Medicine and Surgery from the University of Brescia

08 Certificate

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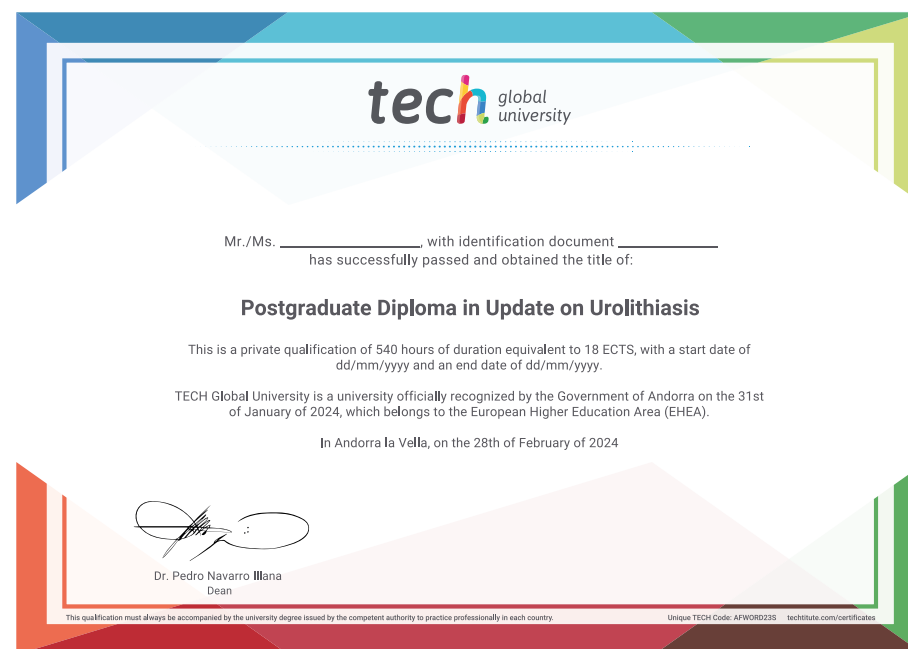
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