

# Postgraduate Certificate Onconeurology and Kidney-Liver Connection





## Postgraduate Certificate Onconeurology and Kidney-Liver Connection

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

Website: [www.techtute.com/us/medicine/postgraduate-certificate/onconeurology-kidney-liver-connection](http://www.techtute.com/us/medicine/postgraduate-certificate/onconeurology-kidney-liver-connection)

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Certificate

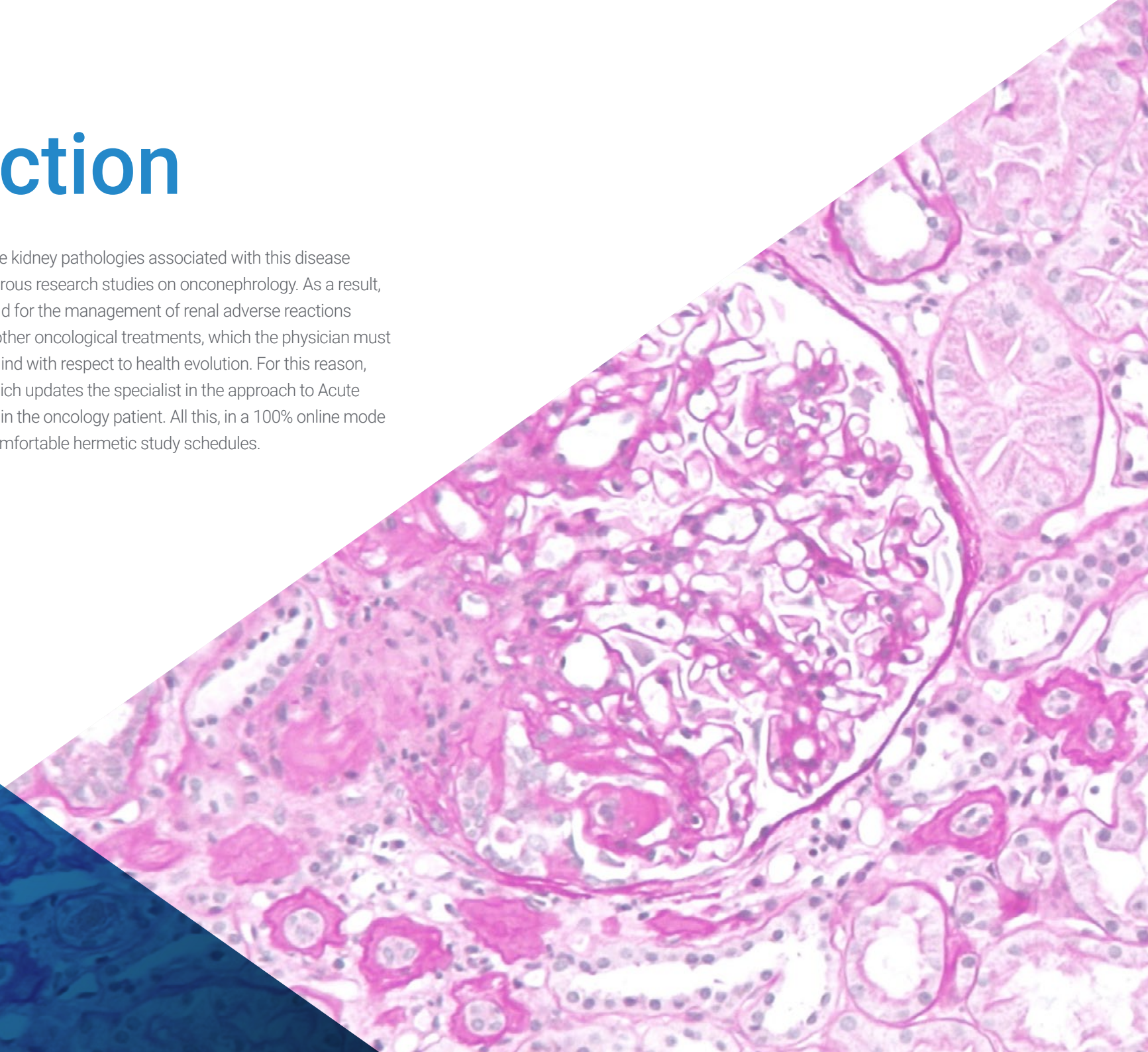
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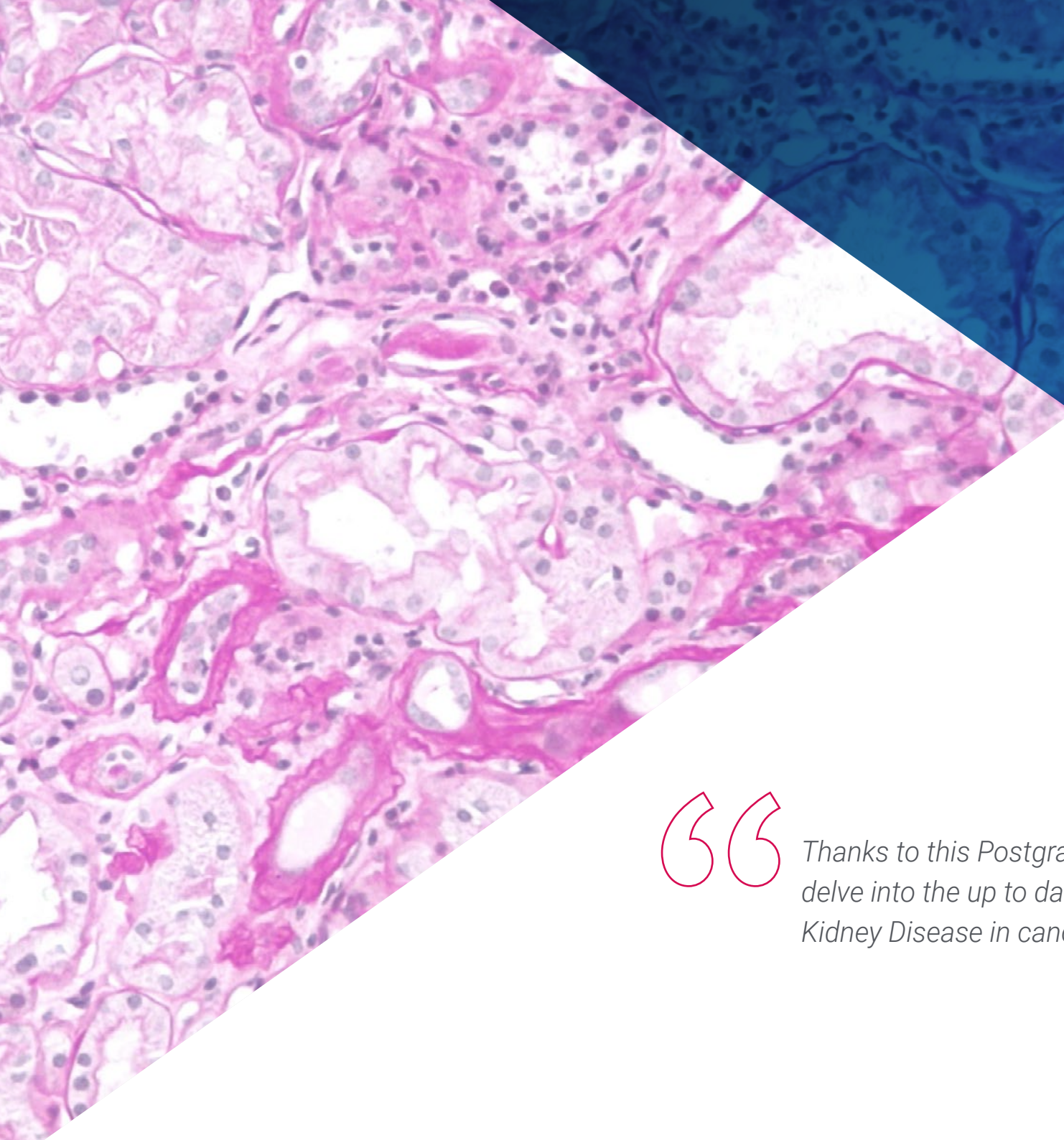
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# 01

# Introduction

The high prevalence of cancer and the kidney pathologies associated with this disease have led to the development of numerous research studies on onconeurology. As a result, improved procedures have been found for the management of renal adverse reactions associated with chemotherapy and other oncological treatments, which the physician must be aware of in order not to be left behind with respect to health evolution. For this reason, TECH has designed this program, which updates the specialist in the approach to Acute Renal Failure or renal transplantation in the oncology patient. All this, in a 100% online mode and without the need to stick to uncomfortable hermetic study schedules.





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*Thanks to this Postgraduate Certificate, you will delve into the up to date risk factors of Chronic Kidney Disease in cancer patients"*

Onconeurology is a discipline that has undergone a remarkable evolution in recent years, due to the increase of patients with cancer who experience renal problems. In this regard, innovative treatments have been developed to combat the adverse effects on the kidneys caused by the various oncological therapies and to ensure the well-being of the patient. Consequently, the specialist is obliged to be aware of these advances in order to optimize his professional update.

For this reason, TECH has decided to create this qualification, which provides the doctor with an excellent update on Onconeurology and Kidney-Liver Connection. During 6 weeks of study, you will delve into the latest recommendations to avoid adverse renal effects due to *check-point* inhibitors in cancer patients. You will also learn about the up to date management of Hepatorenal Syndrome or the use of extracorporeal liver support devices.

Since this Postgraduate Certificate is offered in a 100% online format, professionals will be able to adapt their update to their daily schedules and responsibilities without time constraints. In addition, the program's approach is based on the Relearning methodology, which will provide physicians with the facilities to ensure understanding and acquisition of the most relevant knowledge.

This **Postgraduate Certificate in Onconeurology and Kidney-Liver Connection** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ◆ Practical cases presented by specialists in Nephrology and Internal medicine
- ◆ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- ◆ Practical exercises where 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



*In just 6 weeks, you will optimize your update in Onconeurology and Kidney-Liver Connection"*

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*You will identify, throughout this program, the revolutionary techniques for the treatment of renal complications following the use of drugs in the oncologic context”*

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 learn in 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 academic year. For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

*Do you want to update your skills without giving up your daily chores? This 100% online Postgraduate Certificate has been designed for you!*

*With this program, you will learn about the latest management of Acute Renal Failure in the oncology patient.*



# 02 Objectives

This program aims to provide physicians with innovative knowledge in the comprehensive management of patients with renal and hepatic diseases in the oncological context. In this way, you will delve into the latest diagnosis, treatment and follow-up of kidney diseases associated with oncology, online and without giving up your personal obligations.







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*With this program, you will learn the latest techniques for the management of Hepatorenal Syndrome”*



## General Objectives

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- ◆ Care for patients with chronic kidney disease and its most frequent complications
- ◆ Care for patients with acute renal failure and its complications, as well as to understand the objective of initiating renal replacement therapy, its indications and management
- ◆ Have an overview of Nephrology as a specialty with its different branches of knowledge and a global approach to the patient
- ◆ Understand and learn the branches that are emerging within the specialty such as diagnostic and interventional nephrology, onconeurology, or cardioneurology





## Specific Objectives

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- ◆ Gain an in-depth knowledge of Onconeurology as a subspecialty of Nephrology and its usefulness
- ◆ Learn to identify those patients at risk of developing renal failure during oncological treatment, as well as its approach and treatment
- ◆ Learn the close relationship between the kidney and the liver
- ◆ Know in depth the diagnostic criteria of hepatorenal syndrome and its management



*The online modality of this Postgraduate Certificate will allow you to optimize your learning from your own home"*

03

# Course Management

This program has a teaching team made up of recognized experts in the field of Nephrology. These professionals have vast experience in the management of renal pathologies, surgical interventions and dialysis methods. Therefore, the knowledge that physicians will obtain will be in accordance with the most recent advances in this area.





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*Get up to date through a syllabus designed and developed by the best specialists in the field of Nephrology, with which you will explore the acute kidney injury of post liver transplantation and the effects of immunosuppression"*

## International Guest Director

With an extensive professional career of over 30 years, Dr. David Mount has become a prestigious Nephrologist highly specialized in the area of Renal Medicine. In this sense, his clinical approach focuses on providing personalized clinical programs according to the individual characteristics of patients with chronic and acute conditions. Thanks to the application of multiple innovative techniques, he has managed to optimize both the quality of life of numerous individuals and their long-term recovery prognosis.

In this same line, he has carried out his functions in health institutions of international reference such as the Brigham and Women's Hospital in Massachusetts. Therefore, he has held strategic roles ranging from Renal Area Management or Management of the Inpatient Dialysis Unit to the Head of Clinical Services. In this way, he has focused on improving the standards of care for users with renal diseases, implementing cutting-edge protocols to maximize therapeutic processes such as hemodialysis and minimize the usual associated risks such as the complication of vascular access.

It has also led the Digital Transformation of various healthcare institutions and implemented solutions such as Artificial Intelligence, Big Data and even Intelligent Systems to monitor the status of individuals in real time. These tools have managed to increase the accuracy in diagnoses and treatments of complex Kidney Diseases. Also, this avant-garde vision has made it possible to reduce hospitalization rates, which has improved the functioning of health systems by promoting a more efficient, accessible and high quality care model.

On the other hand, he has balanced these tasks with his facet as a Clinical Researcher. In fact, he has a vast scientific production in areas such as cutting-edge techniques for Renal Transplants, identification of Biomarkers and strategies for the prevention of Renovascular Hypertension.



## Dr. Mount, David

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- Clinical Chief of the Renal Division at Brigham and Women's Hospital in Massachusetts, United States
- Director of Dialysis Services at Brigham and Women's Hospital, Massachusetts
- System of Care Physician, VA Boston Healthcare System, Massachusetts
- Vanderbilt University Medical Center, Vanderbilt University Medical Center, Vanderbilt
- Nephrology Internship at Brigham and Women's Hospital, Massachusetts
- Internal Medicine Residency at Toronto General Hospital
- Doctor of Medicine from the University of Toronto
- Bachelor of Science in Biochemistry from the University of Ottawa



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

## Management



### Dr. Ribas Closa, Andrés

- Nephrologist at the Sant Jordi Clinic in Sant Andreu
- Nephrology Del Mar Hospital, Barcelona
- Expert in Clinical Ultrasound at the Francisco de Vitoria University
- Master's Degree in Infectious Diseases and Antimicrobial Treatment from the CEU Cardenal Herrera University
- Degree in Medicine from the Autonomous University of Barcelona



### Dr. Angulo, Josep María

- Head of Nephrology Service at Fundació Althaia in Manresa
- Head of Nephrology Service at the Hospital de Palamós
- Professor of Nephrology at the International University of Catalonia
- Former President of the Catalan Societies of Nephrology and Arterial Hypertension
- Specialization in Nephrology by the Hospital de Bellvitge
- Postgraduate degree in Basic Nephrology from the University of Minnesota.
- Degree in Medicine and Surgery from the University of Barcelona
- Member of: Spanish Society of Nephrology and Arterial Hypertension



## Professors

### Dr. Pascual Sánchez, Sergio

- ◆ Specialized in Nephrology at Consorci Sanitari Alt Penedès-Garraf
- ◆ Psychiatric Monitor at CPB (Serveis Salut Mental)
- ◆ Master's Degree in Neurobiology and Behavior from the Instituto Superior de Estudios Psicológicos (Higher Institute of Psychological Studies)
- ◆ Degree in Medicine from the Autonomous University of Barcelona
- ◆ Degree in Psychology from the Autonomous University of Barcelona

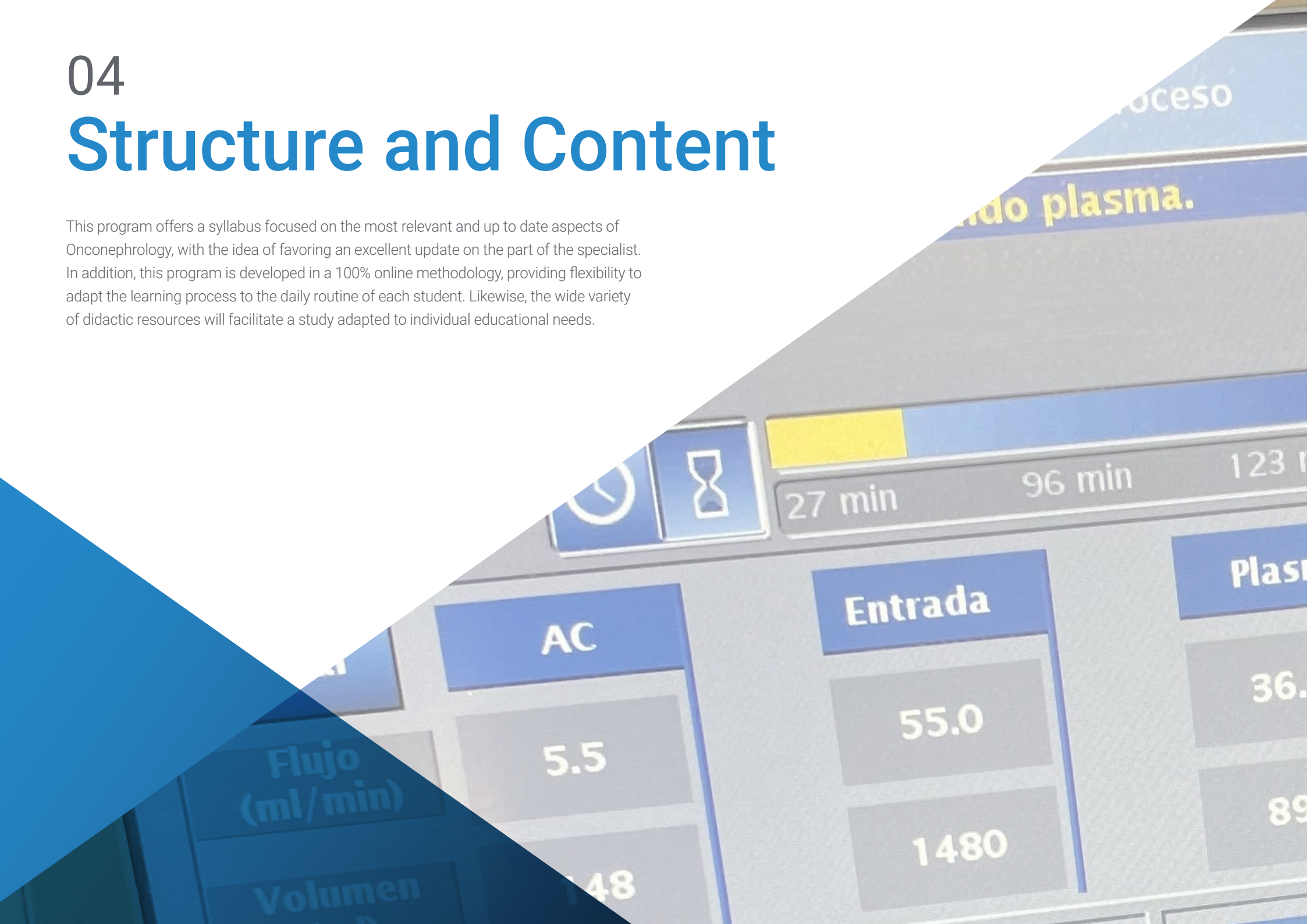
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*Take the opportunity to learn about the latest advances in this field in order to apply it to your daily practice”*

04

# Structure and Content

This program offers a syllabus focused on the most relevant and up to date aspects of Onconeurology, with the idea of favoring an excellent update on the part of the specialist. In addition, this program is developed in a 100% online methodology, providing flexibility to adapt the learning process to the daily routine of each student. Likewise, the wide variety of didactic resources will facilitate a study adapted to individual educational needs.



Finalizar proceso

Factor de  
concentración

20

Reposición

30.3

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*With the Relearning method, you will avoid spending long hours studying and will be able to focus on the most important concepts in an efficient way"*

## Module 1. Onconephrology and Kidney-Liver

- 1.1. Kidney-Cancer Connection
  - 1.1.1. Chronic kidney disease and cancer: risk factors
  - 1.1.2. Renal damage after contrast in the oncologic patient
- 1.2. Acute Renal Failure in the Oncologic Patient
  - 1.2.1. Diagnosis
  - 1.2.2. Indications for renal biopsy
  - 1.2.3. Thrombotic Microangiopathy in the oncologic patient
  - 1.2.4. Tumor Lysis Syndrome
- 1.3. Check-Point inhibitors
  - 1.3.1. Therapeutic arsenal
  - 1.3.2. Targets of action
  - 1.3.3. Acute Renal Failure
- 1.4. Cancer and Renal Transplantation
  - 1.4.1. Incidence
  - 1.4.2. Diagnosis
  - 1.4.3. Treatment
- 1.5. Liver-Kidney Interaction
  - 1.5.1. Pathophysiology of the hepatorenal syndrome
- 1.6. Management of Hepatorenal Syndrome
  - 1.6.1. Diagnostic Criteria
  - 1.6.2. Prophylaxis and general measures
  - 1.6.3. Vasoconstrictors and albumin
- 1.7. Renal Dysfunction After Liver Transplantation
  - 1.7.1. Acute renal injury after liver transplantation
  - 1.7.2. Effects of immunosuppression
- 1.8. Extracorporeal Liver Support Devices
  - 1.8.1. MARS Systems
  - 1.8.2. Hemofiltration and Hemodiafiltration
  - 1.8.3. Single-pass dialysis



- 1.9. Chronic Kidney Disease and Cirrhosis
  - 1.9.1. Hepatitis virus infection in chronic kidney disease
  - 1.9.2. NASH and metabolic syndrome
  - 1.9.3. Indications for double Liver and Kidney transplantation
- 1.10. Glomerulopathies and Cirrhosis
  - 1.10.1. Secondary IgA glomerulopathy
  - 1.10.2. Other glomerulopathies in the cirrhotic patient

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*Enjoy the most advanced knowledge in the educational environment on Onconeurology and Kidney-Liver Connection"*



05

# Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.



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*Discover Relearning, 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

What should a professional do in a given situation? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately 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 will 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 power 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 the physician's professional practice.



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*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 achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate 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.



## Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This 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, a real revolution with respect to the mere study and analysis of cases.

*Professionals will learn through real cases and by resolving 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 Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

*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.*

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

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



This program offers the best educational material, prepared with professionals 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 highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



#### Surgical Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.



#### Interactive Summaries

The TECH team presents 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

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





#### Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



#### Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



#### Classes

There is scientific evidence on the usefulness of learning by observing experts. The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



#### Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.



06

# Certificate

The Postgraduate Certificate in Onconeurology and Kidney-Liver Connection guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.





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*Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork”*

This program will allow you to obtain your **Postgraduate Certificate in Onconephrology and Kidney-Liver Connection** 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 Onconephrology and Kidney-Liver Connection**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



\*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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development language  
virtual classroom

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university

**Postgraduate Certificate**  
Onconephrology and  
Kidney-Liver Connection

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