

# Postgraduate Certificate

## Renal Transplant and Other Blood Cleansing Techniques





## Postgraduate Certificate

### Renal Transplant and Other Blood Cleansing Techniques

- » Modality: online
- » Duration: 6 week
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/pk/medicine/postgraduate-certificate/renal-transplant-other-blood-cleansing-techniques](http://www.techtute.com/pk/medicine/postgraduate-certificate/renal-transplant-other-blood-cleansing-techniques)

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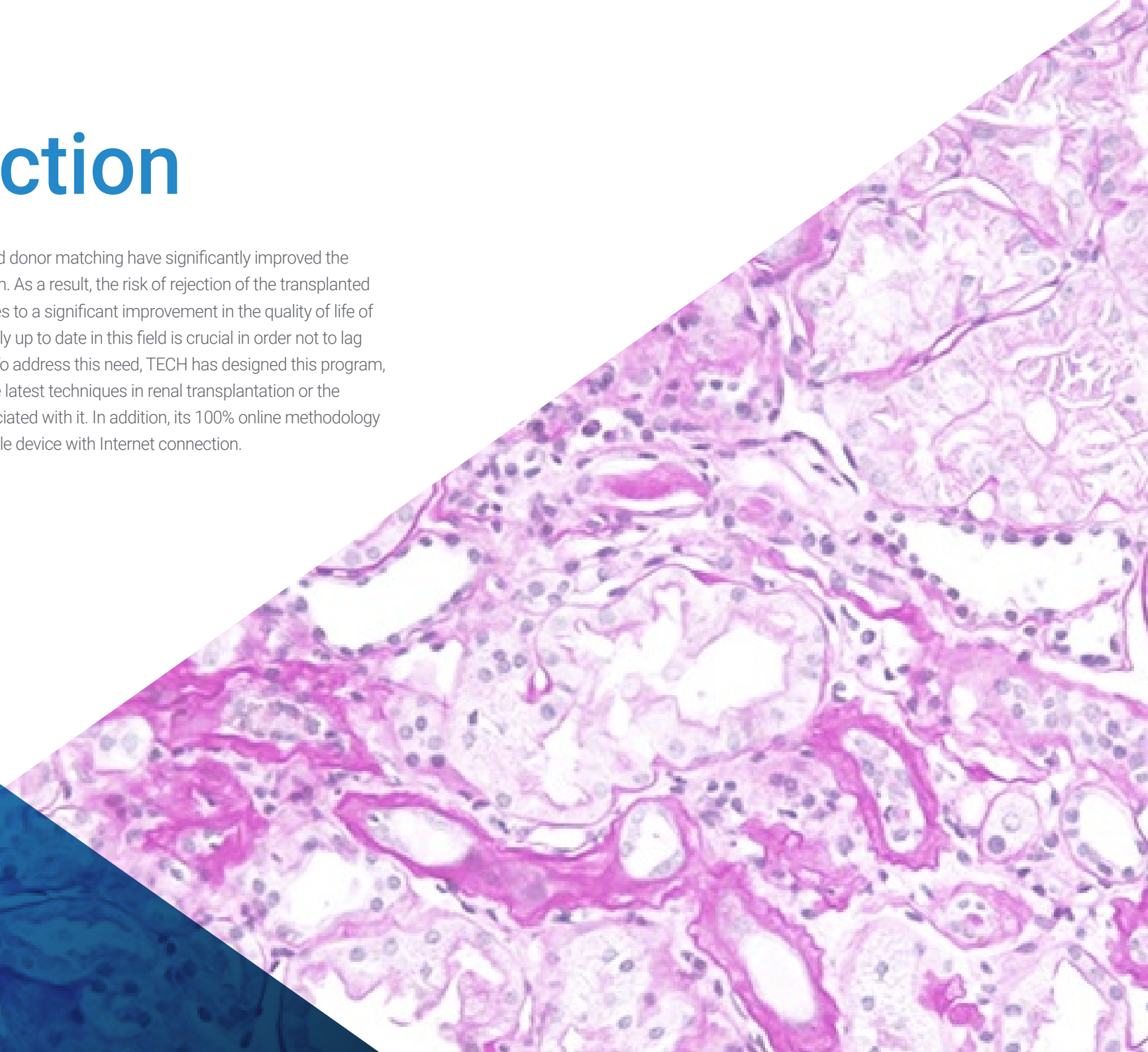
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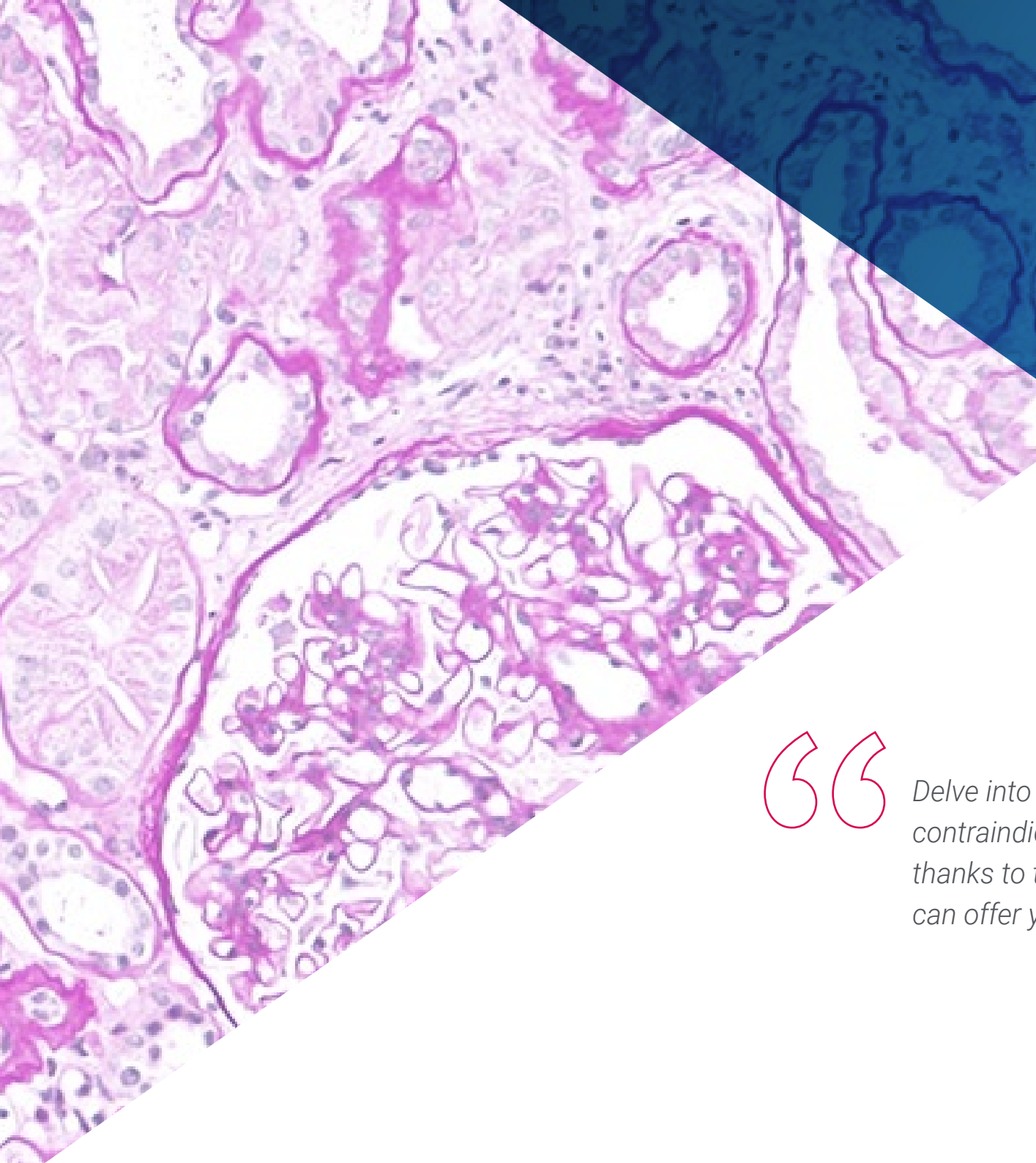
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# 01

# Introduction

Advances in immunosuppression and donor matching have significantly improved the success rate of kidney transplantation. As a result, the risk of rejection of the transplanted organ is decreasing, which contributes to a significant improvement in the quality of life of patients. Therefore, keeping constantly up to date in this field is crucial in order not to lag behind the evolution of Nephrology. To address this need, TECH has designed this program, which provides the specialist with the latest techniques in renal transplantation or the management of complications associated with it. In addition, its 100% online methodology will allow you to study from any mobile device with Internet connection.





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*Delve into the up to date indications and contraindications of renal transplantation thanks to this program that only TECH can offer you”*

Renal transplantation has been a fundamental milestone in medicine, offering patients the possibility of improving their quality of life and freeing them from dependence on dialysis. Despite the associated complications, advances in surgical technique, immunosuppressive drugs and donor-recipient compatibility have helped to increase the survival rate and improve outcomes. Consequently, it is crucial for specialists to keep up to date with the latest advances in the field in order to position themselves at the medical forefront.

In view of this situation, TECH has developed this Postgraduate Certificate, with the aim of providing physicians with the most advanced knowledge on renal transplantation and blood Cleansing techniques. During 150 hours of intensive study, you will delve into the recent indications and contraindications of transplantation or the latest procedures to treat infections associated with it. You will also delve into the advanced uses of plasmapheresis for blood cleansing.

This 100% online program allows students to tailor their studies to their schedule and daily responsibilities, without time constraints. In addition, Relearning methodology is used, which fosters a solid and lasting understanding of key concepts, promoting continuous improvement in clinical practice.

This **Postgraduate Certificate in Renal Transplant and Other Blood Cleansing Techniques** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ◆ Develop of 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 the self-assessment process can be carried out 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



*Delve into the up to date procedures for the management of post renal transplant complications"*



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*Update yourself without giving up your professional life thanks to the 100% online modality of this program"*

*In as little as 6 weeks, you'll delve further into infections that can be caused in transplant patients, their identification and the most up-to-date treatment.*

*You will enjoy the most up to date educational content available in innovative multimedia formats to optimize your study.*

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.



# 02 Objectives

This program aims to provide specialists with the most innovative knowledge in the field of renal transplantation and blood Cleansing techniques. In this way, they will be prepared to carry out a cutting-edge medical practice. All this, following a revolutionary educational methodology and enjoying contents designed by the best nephrologists.





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*You will incorporate into your medical practice the most up-to-date knowledge on the various applications of plasmapheresis to undertake the blood cleansing”*



## 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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- ◆ Know in depth the indications and contraindications for renal transplantation
- ◆ Know in depth the immunosuppression guidelines in the renal transplant patient, as well as its complications
- ◆ Understand the management of infections in the renal transplanted patient, as well as the management of acute rejection
- ◆ Know and expand the study of the different blood Cleansing techniques such as plasmapheresis, adsorption techniques

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*Be at the forefront of  
Nephrology in only 150  
hours of medical update”*



03

# Course Management

This program has a teaching team composed of recognized experts in the field of Nephrology. These professionals have extensive skills in the management of renal transplantation, surgical procedures and dialysis therapies, acquired through experience in leading international hospitals. Therefore, the knowledge acquired by the students will be aligned with the latest advances in this field.





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*Get your medical update from  
specialists with extensive experience  
in the world of Nephrology”*



## 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. Outón, Sara

- ◆ Nephrologist at Consorci Sanitari Alt Penedès-Garraf
- ◆ Pediatric Nephrologist in the University of California
- ◆ Degree in Medicine from the University of Santiago de Compostela

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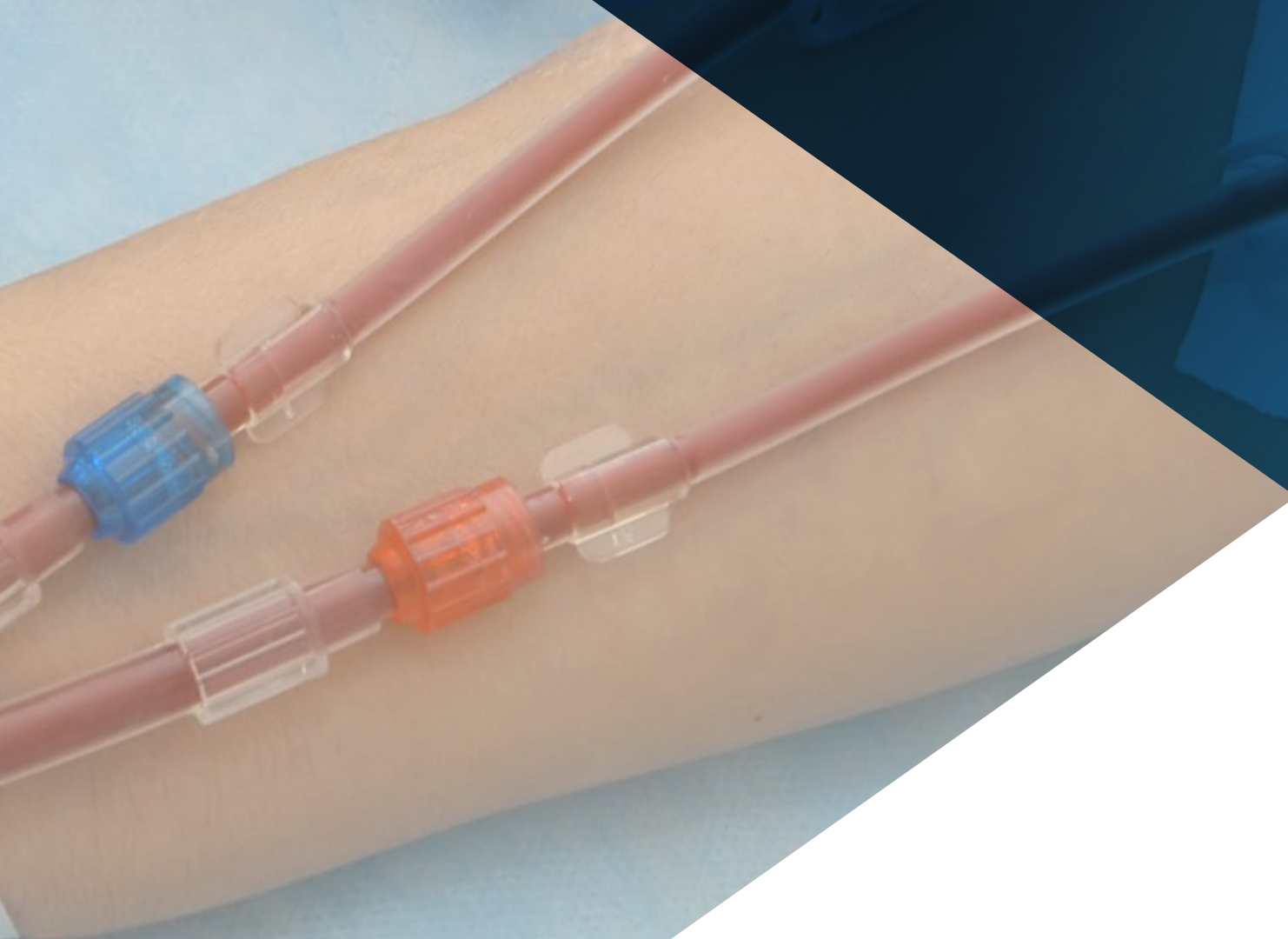
*A path to achieve education and professional growth that will propel you towards a greater level of competitiveness in the employment market”*

# 04

## Structure and Content

This Postgraduate Certificate offers a syllabus that covers relevant topics in the field of renal transplantation and blood Cleansing techniques. In this way, up to date content will be provided, including indications for transplantation or recommendations for the management of complications. In order to provide an optimal learning experience, TECH has developed the program 100% online, allowing the student to enjoy multimedia resources that will enhance the study process from their own home.





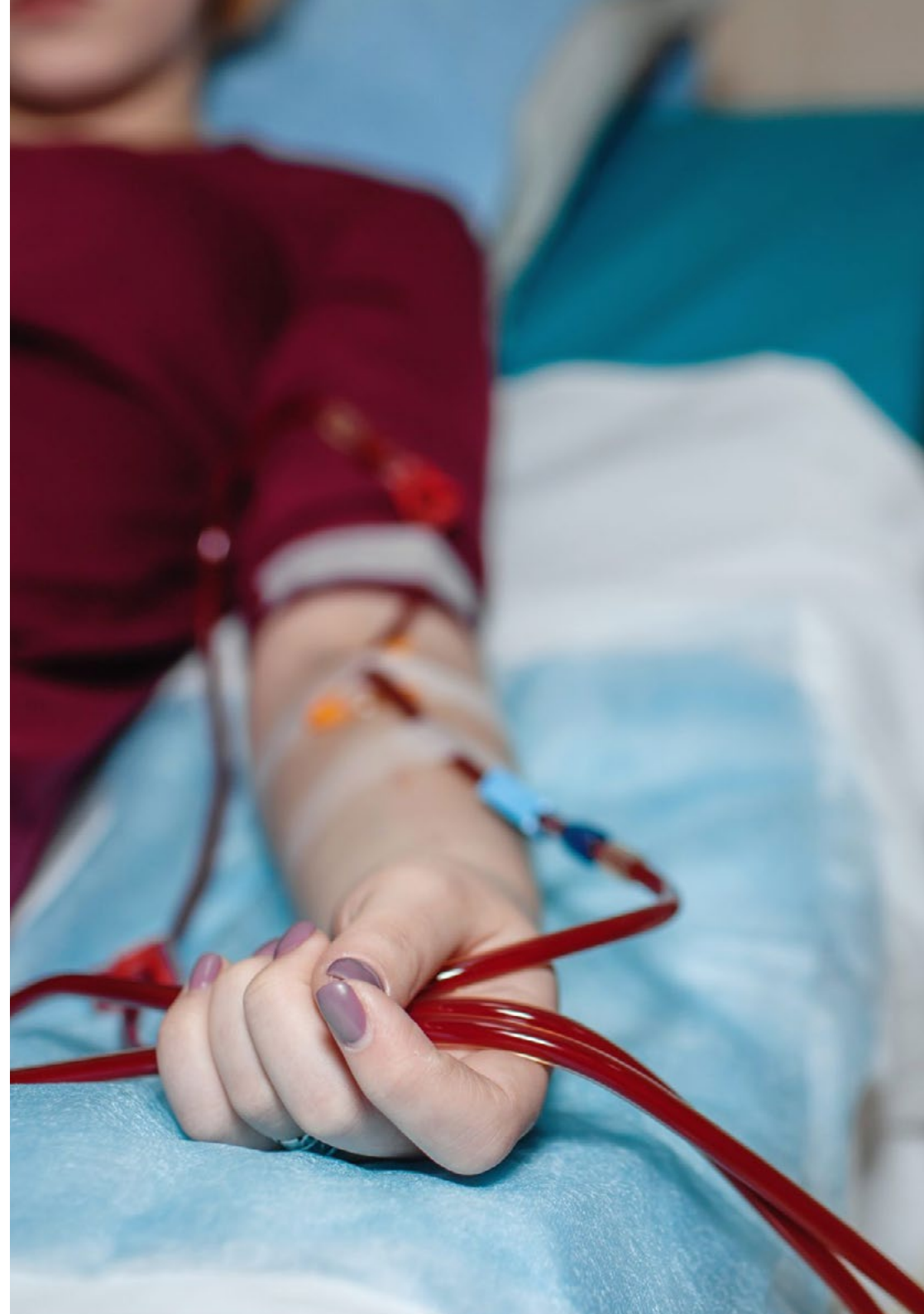
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*TECH's Relearning methodology will allow you to enjoy the didactic contents based on your own study pace to optimize your updating process"*



## Module 1. Renal Transplant and Other Blood Cleansing Techniques

- 1.1. Indications for Renal Transplantation
  - 1.1.1. Indication and contraindications of renal transplantation
  - 1.1.2. Pre-renal transplant immunological study
- 1.2. Immunosuppression in Renal Transplantation
  - 1.2.1. Immunosuppression regimens in renal transplantation
  - 1.2.2. Induction regimens in renal transplantation
  - 1.2.3. Complications related to immunosuppression
  - 1.2.4. Imlyfidase
- 1.3. Complications of Renal Post-transplantation
  - 1.3.1. Surgical complications
  - 1.3.2. Cardiovascular Complications
- 1.4. Infection in the Renal Transplant Patient
  - 1.4.1. Infections in the immediate post-transplant period
  - 1.4.2. Infections in the Renal Transplant Patient
  - 1.4.3. Opportunistic infections: CMV, BKCMV
- 1.5. Acute Rejection in Renal Transplant Patients
  - 1.5.1. Indications for renal biopsy
  - 1.5.2. New Treatments
- 1.6. Plasmapheresis Non Renal Indications
  - 1.6.1. Plasmapheresis in hematologic diseases
  - 1.6.2. Plasmapheresis in Septic Shock
  - 1.6.3. Plasmapheresis in systemic autoimmune diseases
- 1.7. Molecular Adsorption Techniques
  - 1.7.1. Endotoxin adsorption filters
  - 1.7.2. Utility and clinical evidence





- 1.8. Extracorporeal oxygenation membranes
  - 1.8.1. Membranes for lung support
  - 1.8.2. Membranes for Cardiac support
- 1.9. Prometheus System
  - 1.9.1. Prometheus system utility. EC HELIOS
  - 1.9.2. Comparison between Prometheus and MARS System.
- 1.10. PFAD System (Plasma Filtration-Adsorption-Dialysis)
  - 1.10.1. New Perspectives.
  - 1.10.2. Potential usefulness in the clinic



*You will have at your fingertips the latest academic materials in the educational field, available in the latest multimedia formats to enhance your learning experience"*

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 Renal Transplant and Other Blood Cleansing Techniques guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.





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

This **Postgraduate Certificate in Renal Transplant and Other Blood Cleansing Techniques** contains the most complete and up-to-date scientific on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Certificate** issued by **TECH Technological University** via tracked delivery\*.

The certificate issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Certificate, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Postgraduate Certificate in Renal Transplant and Other Blood Cleansing Techniques**

Official N° of Hours: **150 h.**



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

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university

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