

# Postgraduate Diploma

## Cirrhosis and its Complications





## Postgraduate Diploma Cirrhosis and its Complications

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

Website: [www.techtute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-cirrhosis-complications](http://www.techtute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-cirrhosis-complications)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Expert Management

---

*p. 12*

04

Structure and Content

---

*p. 18*

05

Methodology

---

*p. 22*

06

Certificate

---

*p. 30*

# 01

# Introduction

Cirrhosis is generated by the deficient functioning of the liver, and is a late stage of the formation of scar tissue. It is often caused by prolonged liver disease, as a consequence, for example, of a hepatitis infection, alcoholism or accumulation of fat in the liver. Liver damage caused by cirrhosis usually cannot be reversed, which is why early diagnosis is so important, as it can limit the progression of the damage. For this reason, TECH launches this program specialized in this hepatological pathology and its complications, so that the medical professional can learn about the latest updates and the most innovative techniques in the diagnosis and approach to this hepatic condition.





“

*Become an expert in cirrhosis to diagnose it in time, a vital matter for the patient, and master the approach to its complications to prevent it from becoming irreversible”*

Cirrhosis is caused by the deficient functioning of the liver, being a late stage of its healing. It is a disease often caused by prolonged liver disease resulting from Hepatitis B or C infection, alcoholism or accumulation of fat in the liver not caused by excessive alcohol consumption (called non-alcoholic fatty liver disease [NAFLD] and non-alcoholic steatohepatitis [NASH]). In turn, it is closely related to being overweight, high blood pressure, diabetes or prediabetes, and high cholesterol.

On the other hand, there are other less common causes of cirrhosis such as when immune cells mistake normal liver cells for harmful invaders and attack them, bile duct disorders, some medication or liver diseases passed down from generation to generation.

As cirrhosis progresses, more and more scar tissue forms, causing the liver to function with difficulty (decompensated cirrhosis). Advanced cirrhosis is potentially fatal. Liver damage caused by cirrhosis usually cannot be reversed, which is why early diagnosis is so important, as it can limit the progression of the damage.

All of this has led hepatology to become a specific field of medicine, which sometimes exceeds the objectives of digestive system specialists' training period and implies the need for training and, as a result, the existence of trained professionals. Therefore, it is essential that the medical specialist can respond adequately to the evolution of these events focused on cirrhosis, through an adequate update of their knowledge and the incorporation of these advances in their daily medical practice, which is why TECH has developed this comprehensive program in response to a demanded specialty.

In addition, it is a 100% online program that provides the student with the ease of being able to study it comfortably, wherever and whenever he/she wants. All you need is a device with internet access to take your career one step further. A modality in line with the current times with all the guarantees to position the medical professional in a highly demanded field.

The **Postgraduate Diploma in Cirrhosis and its Complications** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ More than 80 clinical cases presented by experts in the different specialties. The graphic, schematic, and eminently practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice.
- ♦ New diagnoses and treatments for different hepatic pathologies
- ♦ Presentation of practical workshops on procedures, diagnosis, and treatment techniques
- ♦ An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course.
- ♦ With a special emphasis on evidence-based medicine and research methodologies in the field of hepatology
- ♦ All of this will be complemented by 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 delve into the different causes that lead to cirrhosis and with the knowledge you will acquire, you will contribute to its research”*

“

*Thanks to this Postgraduate Diploma you will learn more about a pathology that a large part of the population suffers and which has multiple causes. Do not hesitate and specialize with the best medical experts in hepatology”*

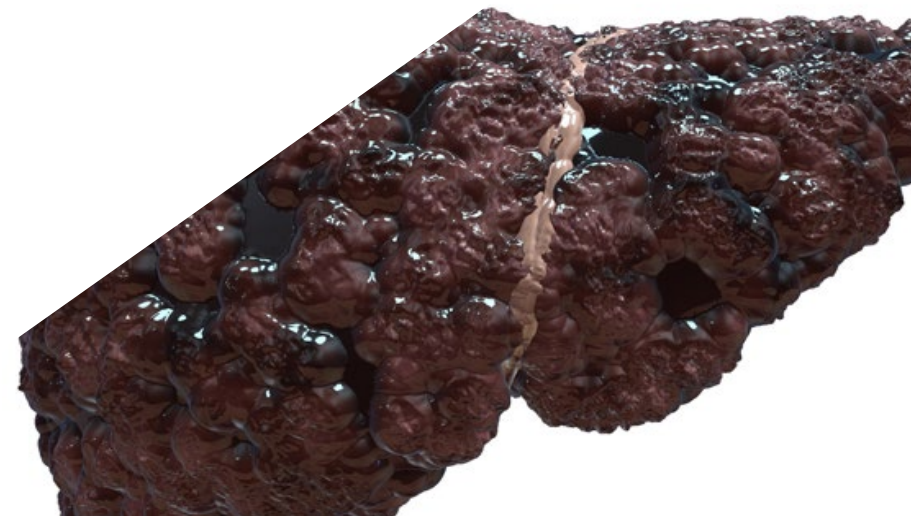
The program's teaching staff includes professionals from the sector who contribute their work experience to this training program, as well as renowned specialists from leading societies and prestigious universities.

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 training programmed to train 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 professional will be assisted by an innovative interactive video system created by renowned and experienced experts.

*You will correctly identify the clinical manifestations and learn to diagnose metabolic liver diseases such as Wilson's disease.*

*If you are looking for a specialized program in Cirrhosis and its Complications, this Postgraduate Diploma is for you.*



# 02

## Objectives

The program of this Postgraduate Diploma will allow the student to achieve the proposed objectives, in order to update and deepen the knowledge about cirrhosis and its various complications, developing optimal skills in diagnostic and therapeutic procedures to know its scope and prevent its progression. To this end, different medical professionals have poured their knowledge into the development of the points of the study plan, which will provide the professional with a complete perspective and a current approach, with full training for the achievement of his or her work goal. The professional will be fully empowered in an increasingly patient-focused field of medicine, guiding them to excellence in their daily medical work. For this reason, TECH has established a series of general and specific objectives for the satisfaction of future graduates, as follows.







“

*You will learn to list recommended and dangerous medication in liver cirrhosis, as well as dietary advice”*



### General Objective

---

- Expand the specialist's knowledge in the management of patients with liver disease, taking into account the latest advances in the field of hepatology, in order to provide quality and safe care and to improve the prognosis of the disease

“

*You will know how to diagnose and treat hemochromatosis, a metabolic liver disease”*





## Specific Objectives

---

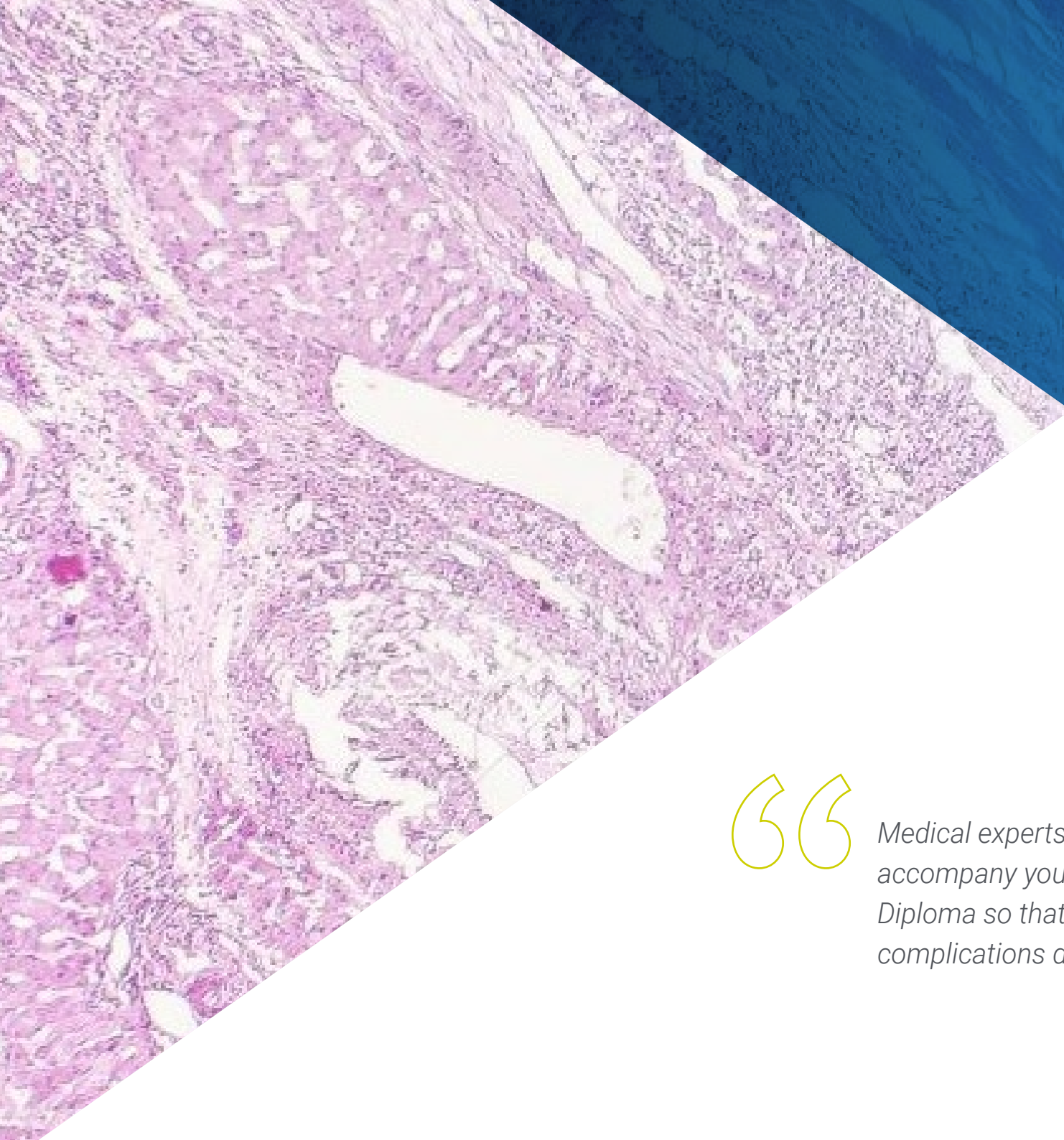
- ♦ Identify the updated diagnostic criteria for liver diseases, and develop a correct differential diagnosis strategy
- ♦ Establish the pathogenic basis of liver diseases, incorporating the latest advances in the field of study
- ♦ Determine the treatment plan for the most prevalent acute and chronic liver diseases
- ♦ Define invasive and non-invasive methods for diagnosing and quantifying fibrosis and their clinical applicability
- ♦ Address the imaging diagnosis of cirrhosis, portal hypertension, and hepatic vascular disease
- ♦ Describe the clinical utility of MRI cholangiography
- ♦ Explain the main laboratory techniques used in basic research
- ♦ Study the alteration of liver function tests in primary care
- ♦ Address the coordinated management of liver transplant patients in Primary Care
- ♦ Analyze the different useful imaging techniques in the diagnosis of the main cholestatic diseases and the current treatment options
- ♦ Develop the clinical manifestations, diagnosis, and treatment of metabolic liver diseases
- ♦ Describe the clinical manifestations, diagnosis, and treatment management of systemic diseases that involve the liver
- ♦ Characterize the natural history of liver cirrhosis its clinical and hemodynamic manifestations
- ♦ Address how to manage the complications of liver cirrhosis: ascites, infections, esophageal variceal bleeding, and hepatic encephalopathy
- ♦ Point out the recommended and dangerous drugs in liver cirrhosis as well as dietary advice
- ♦ Describe the main problems associated with portal hypertension, as well as the diagnosis and possible treatments
- ♦ Point out and analyze the surgical treatment options in the most frequent liver diseases and evaluate the risks and benefits

# 03

# Course Management

TECH University, in its goal of offering elite education for all, relies on renowned medical professionals to provide students with solid knowledge in the specialty of hepatology focusing on cirrhosis and its complications. Therefore, the teaching team of this Postgraduate Diploma is highly qualified. Their extensive experience in this medical unit contributes to the quality of the program, resulting in the provision of the best tools for the development of the student's skills during the course. In this way, the professional has the guaranteed skill required to specialize in the diagnosis, approach and treatment of this liver disease.





“

*Medical experts in Hepatology will accompany you in this Postgraduate Diploma so that you can master all the complications derived from cirrhosis”*

## International Guest Director

Dr. Doan Y. Dao is an internationally recognized figure in the study and care of patients affected by Hepatitis B virus (HBV). As director of the Center of Excellence for Liver Disease in Vietnam (COE), he leads Johns Hopkins University's initiatives to help address the growing, urgent and significant disease burden of Liver Cancer caused by Hepatitis B in Vietnam.

As CEO, Dr. Dao is responsible for managing projects that contribute to the delivery of medical services to combat these diseases. This is an ongoing collaboration with the Johns Hopkins School of Medicine, where he also fosters scientific research and educational activities related to specialization in diagnosis and effective therapeutic treatments.

As a member of the Board of Directors of V-VHA (Vietnam Viral Hepatitis Alliance), he has played a crucial role in promoting clinical care and international scientific studies in HBV. In addition, he was co-chair of the National Task Force on Hepatitis B: Focus on Asian and Pacific Islander Americans, where he worked tirelessly to raise awareness of the condition.

He has received several awards throughout his career, such as the Hepatitis Fund for the Cure Postdoctoral Research Fellowship (2014), awarded by the American Liver Foundation; or the Asian Heritage Award in Public Health (2016), presented by the Asian Heritage Society of California. In addition, he was named Everyday Hero (2016) by the American Liver Foundation, thanks to his efforts in addressing Hepatitis B, both in the United States and Vietnam. His clinical training in Internal Medicine and Gastroenterology and Hepatology at UT Southwestern Medical Center in Dallas, Texas, along with his commitment to academic medicine, have allowed him to lead groundbreaking research in search of a cure for HBV.



## Dr. Dao, Doan Y

---

- Director of the Center of Excellence for Liver Disease in Vietnam (COE) at the Johns Hopkins University School of Medicine
- Assistant Professor of Medicine, Division of Gastroenterology and Hepatology, at Johns Hopkins University School of Medicine
- Co-Chair of the National Task Force on Hepatitis B: Focus on Asian and Pacific Islander Americans
- Fellow in Internal Medicine, Gastroenterology and Hepatology at UT Southwestern Dallas Medical Center
- Medical Degree from UT Southwestern Medical Center at UT Southwestern Dallas
- Awards Received:
  - Hepatitis Fund for the Cure Postdoctoral Research Fellowship (2014), by the American Liver Foundation
  - Asian Heritage Award in Public Health (2016), by the Asian Heritage Society of California
  - Everyday Hero (2016) by the American Liver Foundation
- He is a member of:
  - V-VHA (Vietnam Viral Hepatitis Alliance).
  - Hepatitis B Foundation
  - Dallas Fort Worth (DFW) Hepatitis B Free

“

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

## Management



### Dr. García Samaniego, Javier

- Head of the Hepatology Department, La Paz University Hospital, Madrid
- Group Leader and Lead Researcher of the Hepatic and Digestive Diseases at the La Paz University Hospital/IdiPAZ. CIBERehd of the Carlos III Health Institute, Madrid
- Trustee of the Biomedical Research Foundation of La Paz University Hospital and member of the Governing Council of IdiPAZ.
- Coordinator at the Alliance for the Elimination of Viral Hepatitis in Spain (AEHVE)
- He graduated in medicine from the University of Santiago in 1983 and obtained his PhD in 1996 from the Autonomous University of Madrid
- He has participated in numerous nationally and internationally funded research projects
- FIS and ANEP project evaluator
- He has been a member of the board of directors of the AEEH and of the Regional Ethics and Clinical Research Committee of the Community of Madrid
- He has participated in Guidelines and therapeutic protocols for viral hepatitis: consensus for the treatment of viral hepatitis in HIV-positive patients
- Coordinator for the Spanish Guidelines for the treatment of hepatitis B promoted by the AEEH (2020).
- Lead investigator in more than 60 international clinical trials on the treatment of viral hepatitis
- Guest lecturer at numerous national and international congresses, as well as in Spanish and international forums, especially on the management of viral hepatitis B and C treatment. He has participated in the elaboration of the AEEH hepatitis C elimination document (2019) and is the coordinator of the hepatitis B treatment guidelines (2020)





## Professors

### Dr. Andaluz, Irene

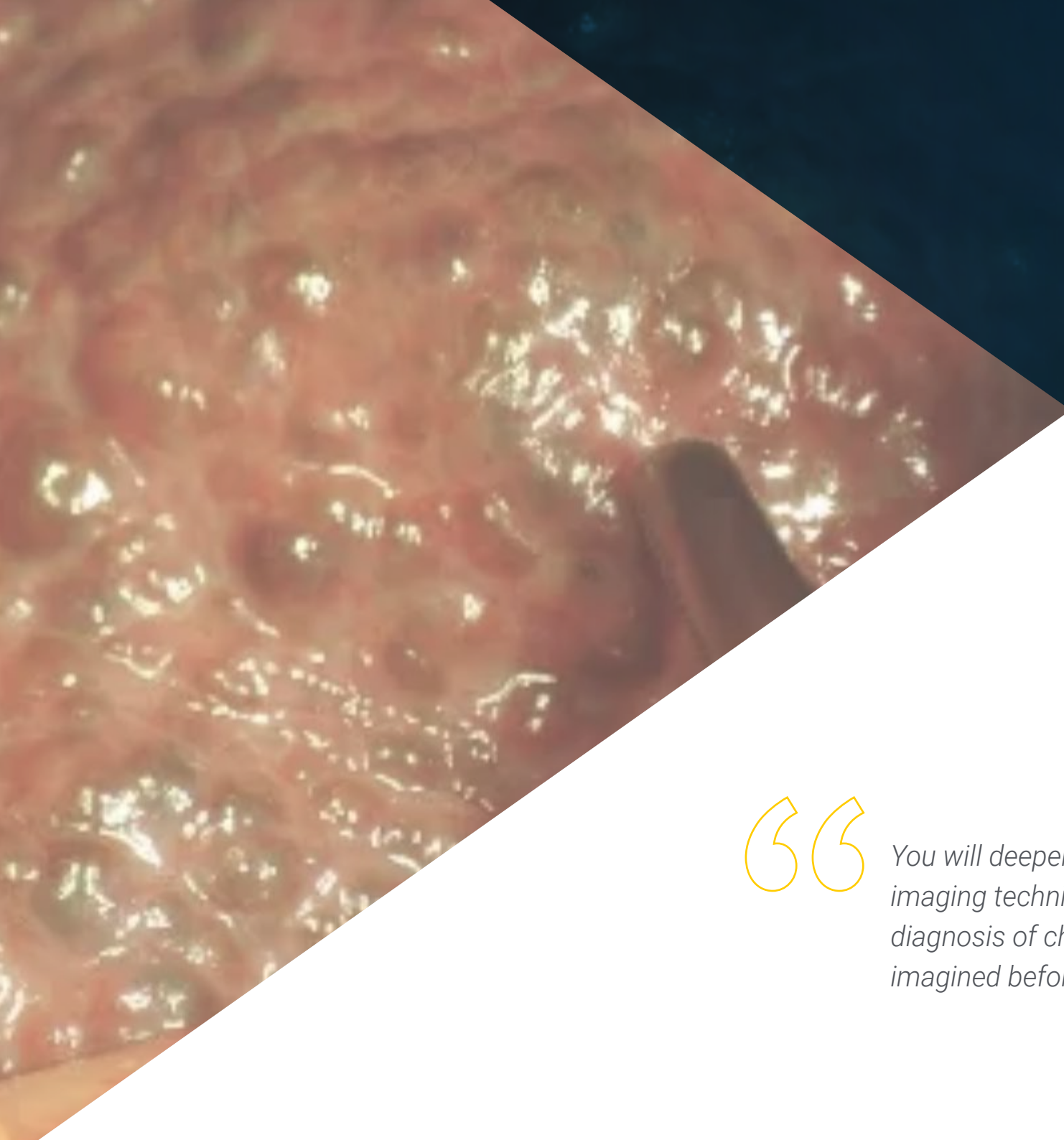
- ◆ Digestive System Specialist. La Paz University Hospital (Madrid)
- ◆ Degree in Medicine from the Faculty of Medicine at the Complutense University of Madrid.
- ◆ Completion of the MIR Examination. Internal Medical Resident of the Digestive System at La Paz University Hospital
- ◆ Training Areas outside the Digestive System: Internal Medicine (5 months), COVID hospital ward (1 month), Emergency Department (1 month). Emergency Department on-call duty (2 years)
- ◆ Master's Degree in Clinical Reasoning and Practice, Alcalá University, Madrid
- ◆ III Edition of the Master's Degree In Gastroenterological and Hepatobiliary Diseases, Distance University of Madrid (UDIMA) - December 2019 - Present
- ◆ VIII Edition of The Master's Degree in Hepatology, University of Alcalá and Autonomous University of Madrid - September 2020-Present
- ◆ Associate Professor in the Digestive Ultrasound Courses J.M Segura Cabral in 2018, 2019 and 2020, La Paz University Hospital, Madrid

# 04

## Structure and Content

The structure of the contents of this Postgraduate Diploma has been designed based on the necessary requirements to understand cirrhosis and its possible complications, in order for the professional to deepen and update their knowledge in this field, following the syllabus proposed by the teaching team of this program. They are professionals in the sector, familiar with the implications of medical training in the approach to patients with this liver disease, the diagnosis of which is vital. A curriculum has thus been established whose modules provide a broad perspective on cirrhosis and its possible complications. In this way, the student will acquire the knowledge to develop professionally in this field of medicine.





“

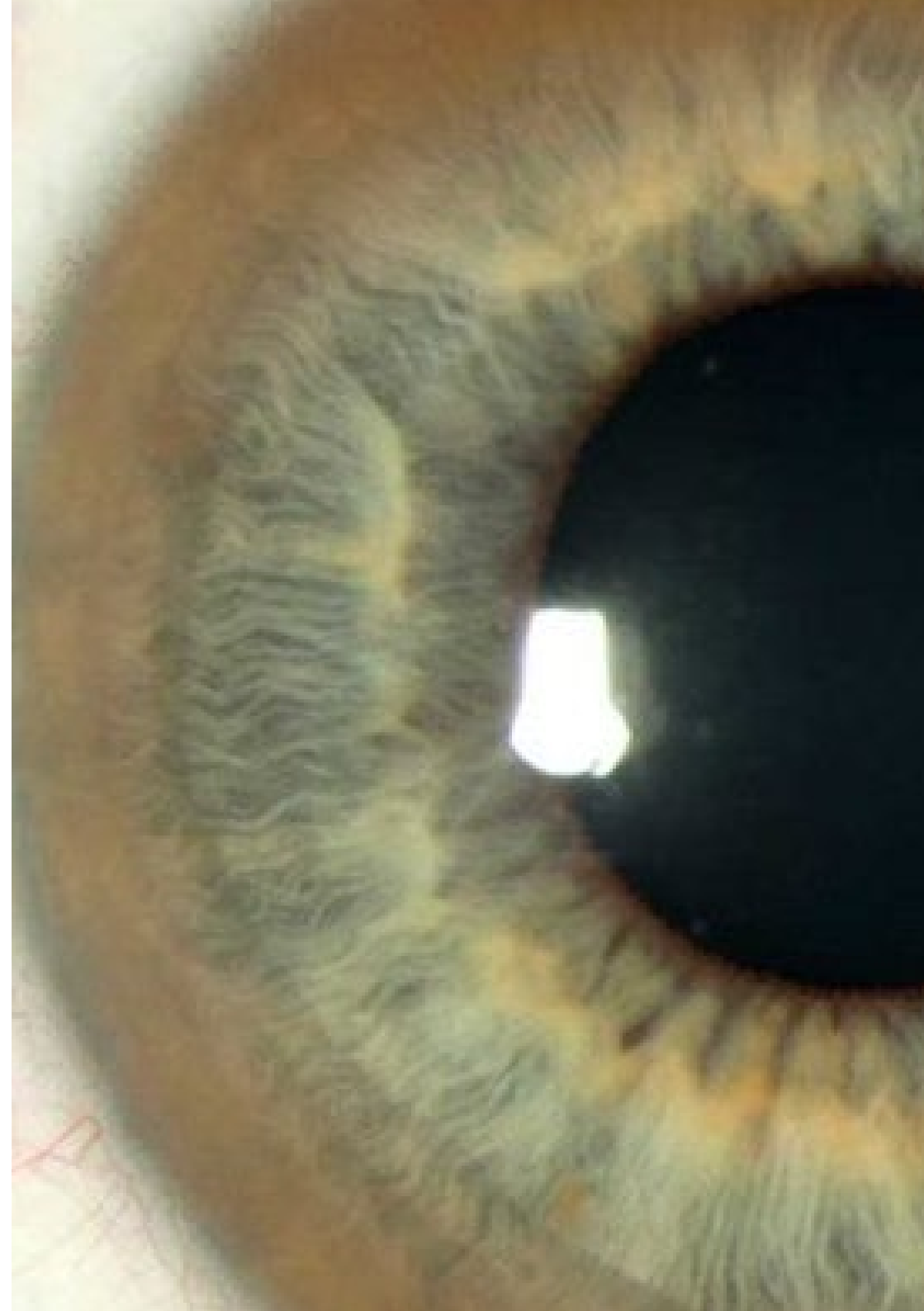
*You will deepen your understanding of imaging techniques in the differential diagnosis of cholestasis in a way you never imagined before”*

## Module 1. Hepatic Cirrhosis

- 1.1. Upper Gastrointestinal Bleeding (UGH) Secondary to Portal Hypertension
- 1.2. TIPS: Current Indications
- 1.3. Hepatic Encephalopathy (HE): Concept, Pathogenesis and Symptoms. Minimum HE
- 1.4. HE: Treatment
- 1.5. Pulmonary Pathology in Cirrhosis: Hepatopulmonary Syndrome
- 1.6. Pulmonary Pathology in Cirrhosis: Porto-Pulmonary Hypertension
- 1.7. Acute on Chronic Hepatic Failure
- 1.8. Cardiomyopathy of the Cirrhotic Patient
- 1.9. Spontaneous Bacterial Peritonitis
- 1.10. Other Infections in the Cirrhotic Patient

## Module 2. Other Metabolic Liver Diseases

- 2.1. Hemochromatosis: Epi and Clinical Manifestations
- 2.2. Hemochromatosis: Dx and Treatment
- 2.3. Hemochromatosis Due to Non-Classical Genes
- 2.4. Liver Porphyrrias
- 2.5. Wilson's Disease: Epi and Clinical Manifestations
- 2.6. Wilson's Disease: Diagnosis
- 2.7. Wilson Disease: Treatment
- 2.8. Deficiency of Alfa1 Antitrypsin
- 2.9. LPAC
- 2.10. Glycogenosis



### Module 3. Liver Transplant

- 3.1. Indications, Patient Selection, and Waiting List Management
- 3.2. Expansion of Liver Transplant Criteria. Organ Preservation Strategies
- 3.3. Severe Acute Liver Failure.
- 3.4. Liver Transplant Surgery
- 3.5. Infections and Liver Transplantation
- 3.6. Immunosuppression in Liver Transplantation. Acute and Chronic Rejection
- 3.7. Biliary Complications
- 3.8. Long-Term Management of Transplanted Patients
- 3.9. Hepatocarcinoma and De Novo Tumors After Liver Transplantation
- 3.10. Survival in Liver Transplantation. Factors Associated with Early and Late Mortality

“

*Boost your career, TECH gives you the opportunity to develop professionally with the best through a unique and innovative methodology”*

05

# Methodology

This training program provides you with a different way of learning. Our methodology uses a cyclical learning approach: ***Re-learning***.

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.



“

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

## At TECH we use the Case Method

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 abundant scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

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



According to Dr. Gervas, 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.



“

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

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

1. Students who follow this method not only grasp concepts, but also develop their mental capacity by evaluating real situations and applying their knowledge.
2. 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.



## Re-Learning Methodology

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

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 simple 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 Re-learning method has managed to improve the overall satisfaction levels of Professionals who complete their Studies with respect to the quality indicators of the best Spanish-speaking online University (Columbia University).

Over 250,000 physicians have been trained using this methodology, with unprecedented success in all clinical specialties regardless of surgical load. This teaching methodology is developed in a highly demanding environment, with a university student body of high socio-economic profile and an average age of 43.5 years.

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

In our program, learning is not a linear process, but rather a spiral (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 multimedia content presentation training Exclusive system 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 & Re-testing

The student's knowledge is periodically assessed and re-assessed throughout the program, through evaluative and self-evaluative activities and exercises: in this way, students can check how they are doing in terms of achieving their goals.



#### Classes

There is scientific evidence on the usefulness of learning by observing experts: The system termed Learning from an Expert strengthens knowledge and recall capacity, and generates confidence in the face of difficult decisions in the future.



#### 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 Diploma in the Cirrhosis and its Complications guarantees, in addition to the most rigorous and up-to-date specialization, access to a Postgraduate Diploma qualification issued by TECH Technological University.



“

*Successfully complete this training program  
and receive your university certificate  
without travel or laborious paperwork”*

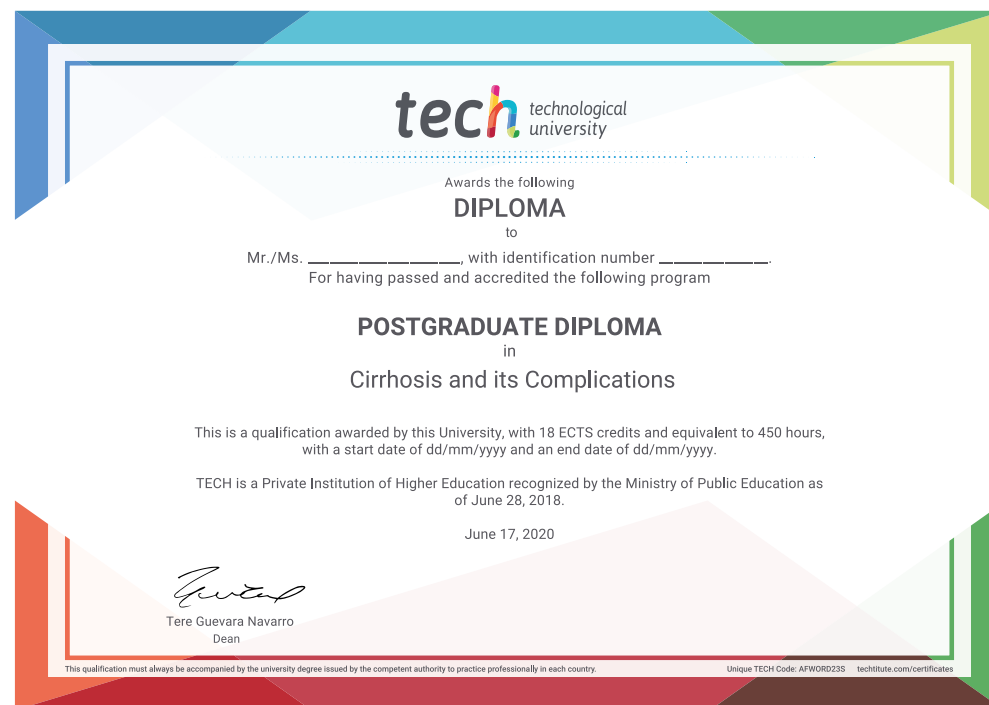
The **Postgraduate Diploma in Cirrhosis and its Complications** contains the most complete and up-to-date scientific program on the market.

After passing the evaluation, the student will receive their corresponding **Postgraduate Diploma** from **TECH Technological University** via tracked delivery\*.

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

Title: **Postgraduate Diploma in Cirrhosis and its Complications**

Official N° of hours: **450 hours**.



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



future  
health confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present quality  
development languages  
virtual classroom



## Postgraduate Diploma Cirrhosis and its Complications

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

# Postgraduate Diploma

## Cirrhosis and its Complications

