Postgraduate Certificate

Ischemic Heart Disease

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Postgraduate Certificate

Ischemic Heart Disease

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

Website: www.techtitute.com/us/medicine/postgraduate-certificate/ischemic-heart-disease

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01

Introduction

Every year there are important scientific studies and publications on acute coronary heart disease and cardiological pathologies, as well as the factors that influence their development in the population. The advances faced by healthcare professionals are constant, as are the situations in patients. The purpose of this program is to provide the physician with an update from different points of view on ischemic heart disease, a very common disease, which can be very serious depending on each case; therefore, the types of treatment and techniques to treat it efficiently will be discussed in depth. Through a completely online study system, where the professional will have a content developed by experts and the most innovative methodology of the current university environment.

You will delve into the surgical complications of myocardial infarction and the most modern techniques to treat them"

One of the most frequent pathologies at the cardiological level today, and one that is gaining more and more cases in the clinical history, is ischemic heart disease. Its different types and variability of causes require extensive study to determine precisely what is most appropriate for each type of patient. Obtain the essential knowledge for its integral approach, is what is offered with this Postgraduate Certificate.

For this purpose, TECH has a teaching staff with the most prestigious background in the area of cardiology. Their innumerable experiences provide this refresher program with a high academic level. It begins with the study of the physiology of myocardial ischemia and delves into angina and infarction to continue with the diagnostic methods and natural history of coronary artery disease. It highlights the importance of joint decisions and the Heart Team to address the different medical, percutaneous and surgical treatment strategies.

It also delves into the surgical complications of myocardial infarction and the techniques available to treat them. Concluding the program with an exhaustive analysis of the most significant randomized studies in ischemic heart disease. All of this, through a completely online study system, which provides flexibility to the practitioner by being able to connect from any device and adjusting the schedule of your choice, obtaining the degree in 6 weeks.

The contents are available from the first day, 24 hours a day and are adjusted to an innovative methodology of reiterative character, which is moving the foundations of the current university environment, it is Relearning. This method is characteristic of TECH's programs and has benefited millions of students around the world. The practical nature provides dynamism and a better understanding of the concepts, which can be downloaded for offline consultation.

This **Postgraduate Certificate in Ischemic Heart Disease** contains the most complete and up-to-date scientific program on the market. Its most outstanding features are:

- The development of practical cases presented by experts in cardiology
- 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

Reputed professors in the cardiological area will guide you through their own experience, so that you can perfect your techniques after this Postgraduate Certificate"

A program that studies the physiology of myocardial ischemia and delves into angina and infarction, followed by diagnostic methods and the natural history of coronary artery disease"

The number of real clinical cases raised, nourish the content and contribute to the implementation of the student's practice.

TECH provides you with the best content from a more secure study platform. Get connected today.

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

Its 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 an immersive education programmed to learn in real situations.

The design of this program focuses on Problem-Based Learning, by means of which the professional must try to solve the different professional practice situations that are presented throughout the academic course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.

02

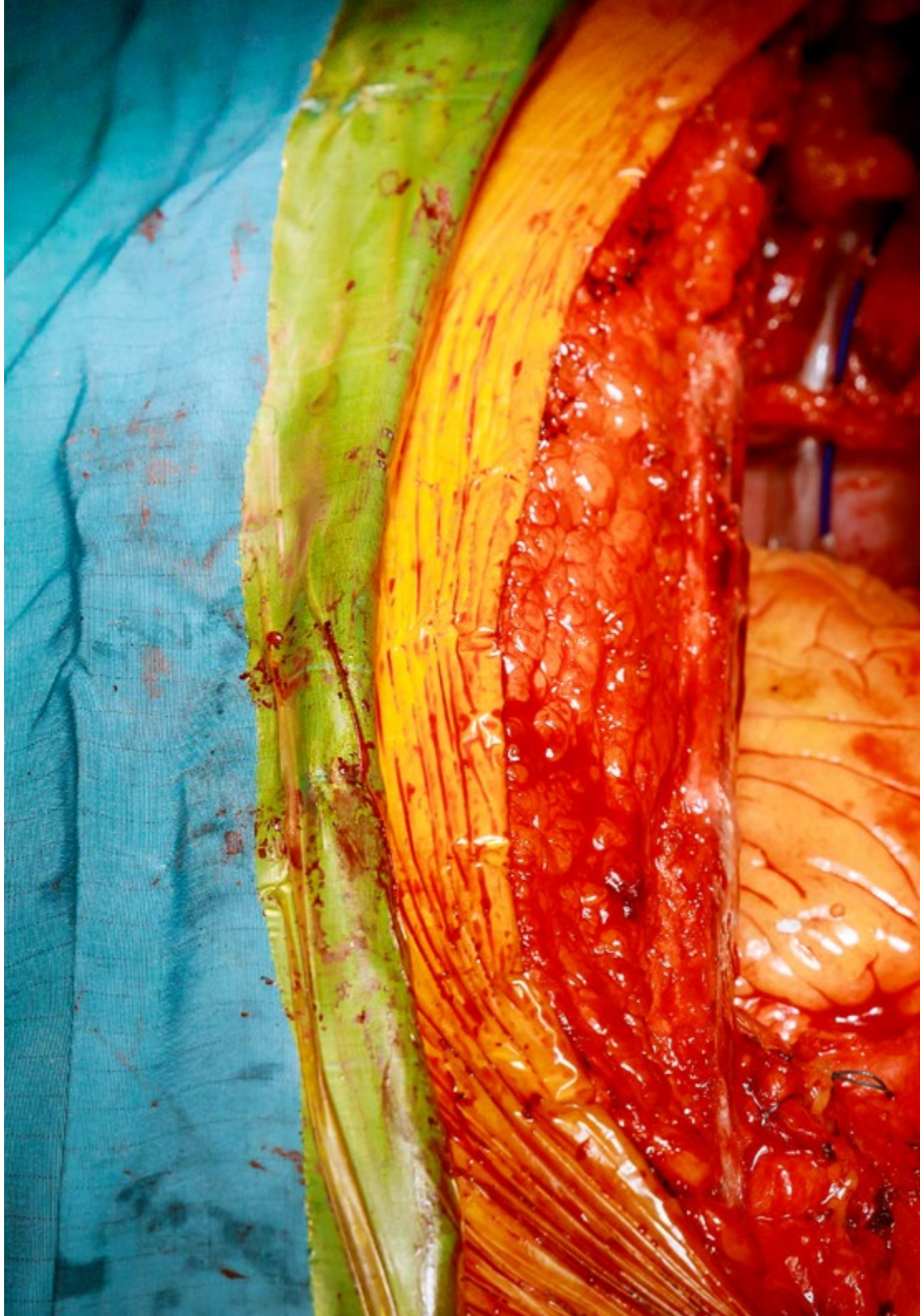
Objectives

The objective of this Postgraduate Certificate is for the professional to develop a complete vision of ischemic heart disease from different points of view, and to obtain the essential knowledge for its integral approach, thus being able to perform in an updated, safe and state-of-the-art way.

Attending an updating program like this one allows you to nourish your knowledge, to open yourself to more and better experiences"

General Objectives

- IDeepen the knowledge of heart diseases and their forms of treatment
- Analyze the importance of new technologies involved in the management and control of cardiac pathologies and imaging techniques
- Obtain the necessary knowledge to improve patient recovery, avoid complications and reduce mortality
- Obtain the most updated knowledge for a comprehensive surgical approach to ischemic heart disease



Specific objectives

- Obtain a multi-angle view of ischemic heart disease
- A comprehensive approach to ischemic heart disease
- In-depth study of angina and myocardial infarction
- Evaluate the diagnostic methods and natural history of coronary artery disease
- Understand the importance of the Heart Team in addressing different medical, percutaneous and surgical treatment strategies
- Delve into the surgical complications of myocardial infarction and the techniques to treat them

TECH wants you to reach your goals sooner than expected, that's why it has all the resources to do so"

03

Course Management

The Diploma in Ischemic Cardiopathy is directed by physicians specialized in Cardiology with an extensive curriculum, and who currently hold important positions in the main hospitals in the country. This gives a deep experiential sense to the content of this program. Their professional and human qualities allow us to give that touch of warmth and closeness within a totally virtual environment, thanks to the resources TECH has available for this purpose.

The background of the expert cardiology faculty who lead this program provides exclusive and up-to-date content"

International Guest Director

With pioneering contributions in the field of **cell therapy** for **cardiovascular diseases**, Dr. Philippe Menasché is considered one of the most prestigious surgeons in the world. The researcher has been awarded several prizes such as the **Lamonica of Cardiology** laureates of the **French Academy of Sciences** and the **Matmut for Medical Innovation**, as well as the **Earl Bakken Award** for his scientific achievements.

His work has established him as a reference in the understanding of **Heart Failure**. In relation to this pathology, he stands out for having participated in the **first intramyocardial transplant of autologous skeletal myoblasts**, marking a true therapeutic milestone.

He has also led clinical trials on the use of **cardiac progenitors** derived from **human embryonic stem cells**, as well as the application of **tissue therapy combined** with these progenitors in patients with **terminal heart disease**.

His research has also revealed the **crucial role** of **paracrine signals** in **cardiac regeneration**. As a result, his team has succeeded in developing cell therapy strategies based exclusively on the **use of the secretome**, with the aim of optimizing the clinical effectiveness and transmissibility of these procedures.

At the same time, this specialist maintains an active work as a surgeon at the **European Hospital Georges Pompidou**. In this institution, he also directs the **Inserm 970 Unit**. On the other hand, in the academic field, he is a professor in the **Department of Biomedical Engineering** at the University of Alabama at Birmingham, as well as at the University of Paris Descartes.

He holds a **PhD** in **Medical Sciences** from the Faculty of Paris-Orsay. He has also served as Director of the **French National Institute of Health and Medical Research** and, for almost two decades, he managed the **Biosurgical Research Laboratory of the Carpentier Foundation**.

Dr. Menasché, Philippe

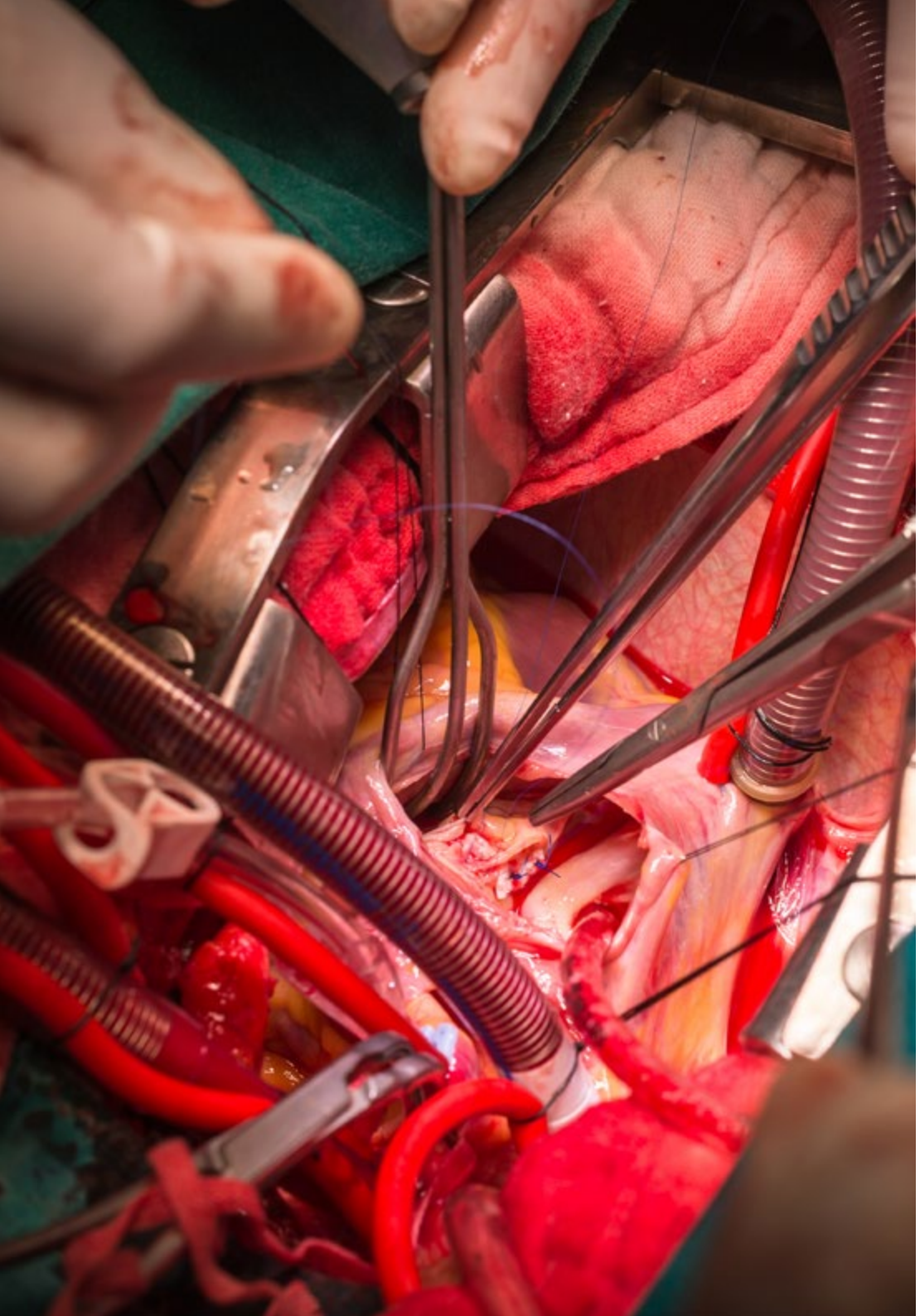
- Director of the National Institute of Health and Medical Research (INSERM), Paris, France
- Clinical Surgeon in the Heart Failure Unit of the European Hospital Georges Pompidou, Paris, France
- Regenerative Therapies for Heart and Vascular Diseases Team Leader
- Professor of Thoracic and Cardiovascular Surgery at the University Paris Descartes
- Academic Consultant to the Department of Biomedical Engineering at the University of Alabama at Birmingham
- Former Director of the Biosurgical Research Laboratory of the Carpentier Foundation
- Doctor of Medical Sciences from the Faculty of Paris-Orsay
- Member of: National Council of Universities, Medical and Scientific Council of the Agency for Biomedicine, Working Group on Regenerative and Reparative Cardiovascular Medicine of the European Society of Cardiology

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

Management

Dr. Rodríguez-Roda, Jorge

- Chief of Cardiovascular Surgery Service at the Ramon and Cajal University Hospital
- Cardiac Surgeon of the Cardiac Surgery Unit of the Hospital Madrid Monteprincipe
- Clinical Professor in the Department of Surgery, University of Alcala de Henares
- Care Coordinator of the Cardiovascular Surgery Service of the Gregorio Marañón General University Hospital
- Assistant Physician of Cardiovascular Surgery at Gregorio Marañón General University Hospital, Hospital Central de la Defensa Gómez Ulla and Hospital del Aire
- Resident physician of the Cardiovascular Surgery,specialty in the Cardiovascular and Thoracic Surgery Service Puerta de Hierro University Hospital. Madrid
- Medical Officer in the Military Health Corps of Spain
- Degree in Medicine and Surgery from the Complutense University of Madrid
- Executive Master's Degree in Healthcare Organization Management ESADE
- Healthcare Organization Leadership Program at Georgetown University
- Resident Medical Intern in the specialty of Cardiovascular Surgery in the Department of Cardiovascular and Thoracic Surgery,Puerta de Hierro Autonomous University Hospital of Madrid
- Diploma of Advanced Studies (DEA) of the Department of Surgery of the Faculty of Medicine of the Complutense University of Madrid
- General Practitioner in the Spanish National Health System and in the Public Social Security Systems of the Member States of the European Communities



Professors

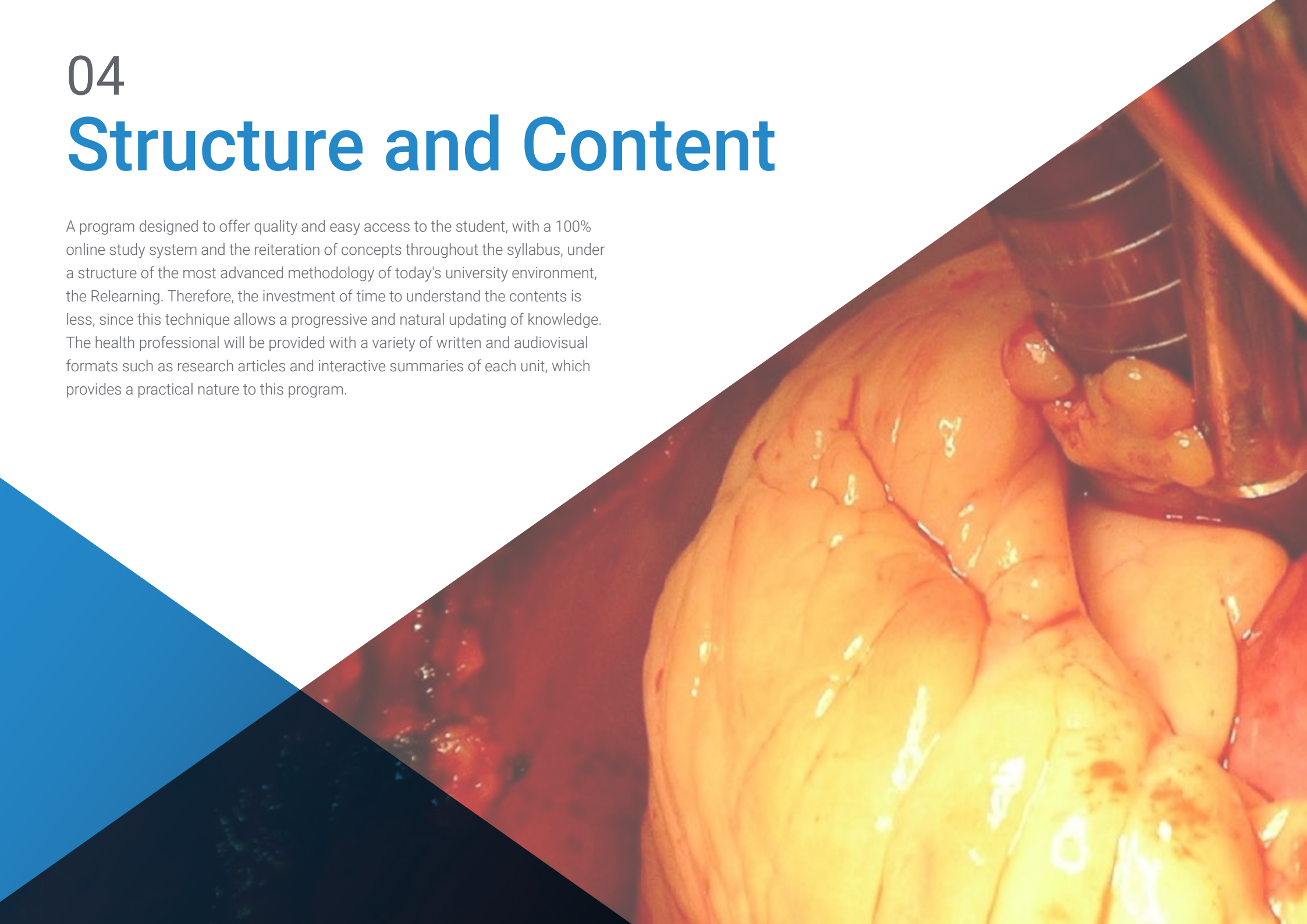
Dr. López Menéndez, José

- Adult Cardiac Surgery Specialist. Ramón y Cajal University Hospital
- Cardiac Surgery Specialist. Oviedo University Hospital
- Clinical Professor in the Department of Surgery at the University of Alcalá de Henares
- Resident tutor. MIR training in cardiovascular surgery. Gregorio Marañon Hospital, Madrid
- Area Specialist Physician. Asturias Central University Hospital
- Doctor in the Official Postgraduate Program in Health Sciences at the Complutense University of Madrid. University of Oviedo
- Degree in Medicine and Surgery. University of Oviedo
- Extraordinary award at the end of his degree. University of Oviedo
- Master's Degree in Research Methodology in Health Sciences Autonomous University of Barcelona
- "Innovations in Cardiac Surgery" Master's Degree Scuola Superiore Sant'Anna, University of Pisa, Italy
- Postgraduate in Statistics and Health Sciences City. Autonomous University of Barcelona
- Specialization in Cardiovascular Surgery. Gregorio Marañón General University Hospital

04

Structure and Content

A program designed to offer quality and easy access to the student, with a 100% online study system and the reiteration of concepts throughout the syllabus, under a structure of the most advanced methodology of today's university environment, the Relearning. Therefore, the investment of time to understand the contents is less, since this technique allows a progressive and natural updating of knowledge. The health professional will be provided with a variety of written and audiovisual formats such as research articles and interactive summaries of each unit, which provides a practical nature to this program.



A 100% online study system, content in a variety of formats and with interactive summaries in each unit"

Module 1. Ischemic Heart Disease

1.1. Clinical Manifestations of Myocardial Ischemia and Myocardial Infarction
- 1.1.1. Coronary Circulation. Pathophysiology of Cardiac Ischemia
- 1.1.2. Stable Angina
- 1.1.3. Non-ST-Elevation Acute Coronary Syndrome (NSTEACS)
- 1.1.4. ST-Elevation Acute Coronary Syndrome (STEACS)

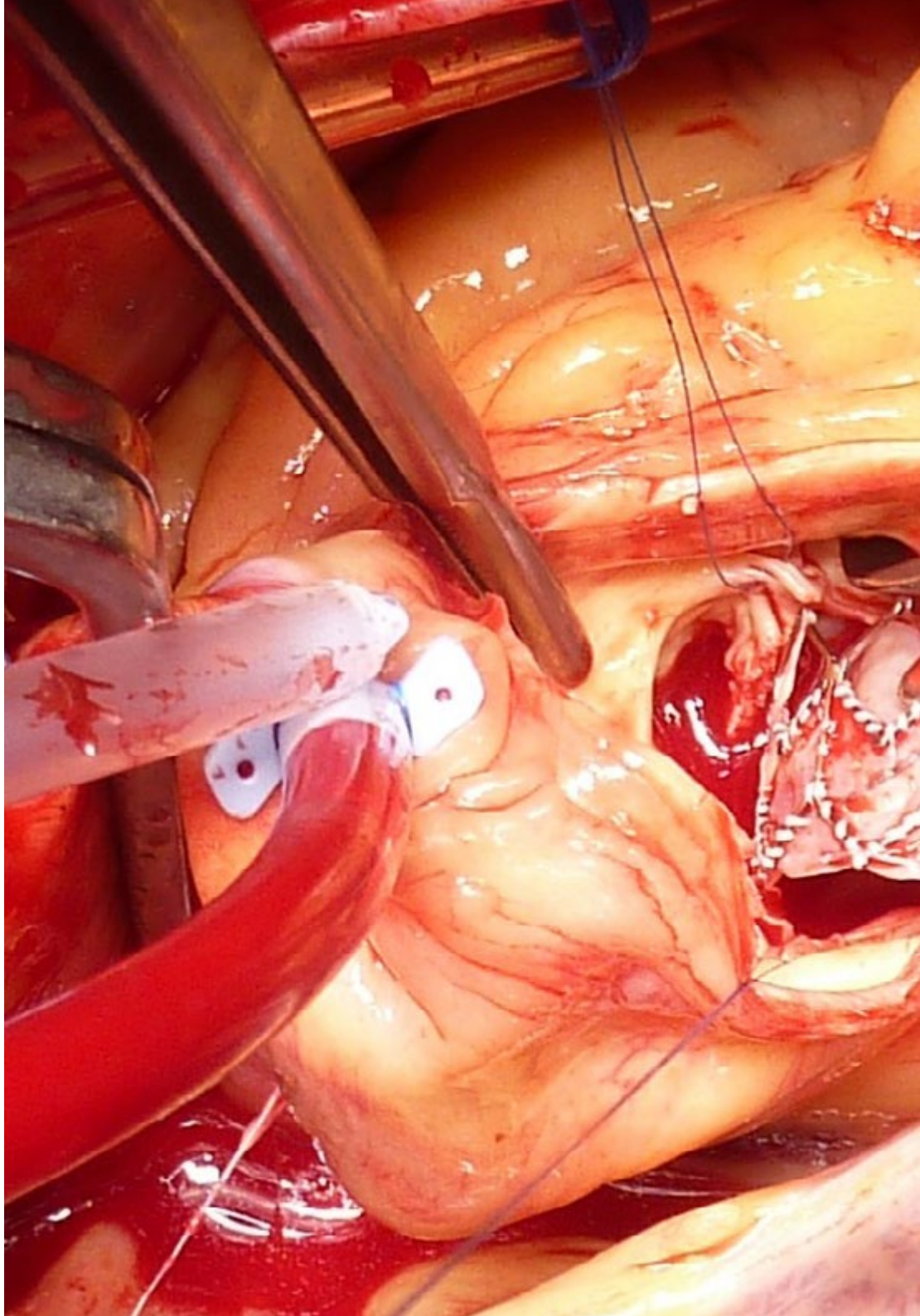
1.2. Diagnosis
- 1.2.1. Electrocardiographic Criteria
- 1.2.2. Enzymatic Modifications
- 1.2.3. Non-Invasive Imaging Techniques
- 1.2.4. Stress Test: Myocardial Feasibility Studies
- 1.2.5. Non-Invasive Imaging Techniques

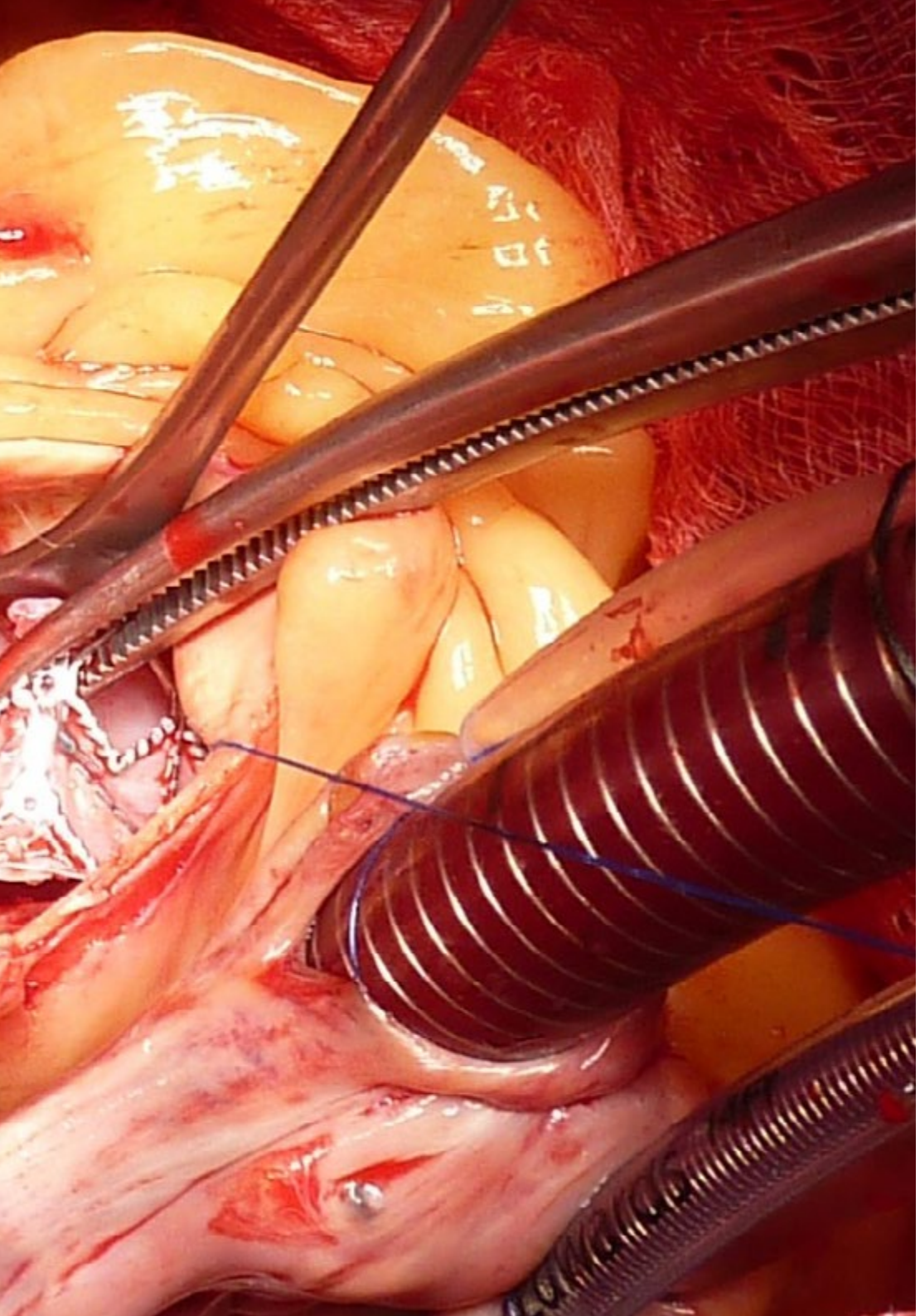
1.3. Clinical Decisions
- 1.3.1. Heart Team
- 1.3.2. Complexity Assessment of Coronary Artery Disease and Surgical Risk
- 1.3.3. Analysis of Clinical Practice Guidelines
- 1.3.4. Decision on the Priority of Intervention
- 1.3.5. Medical Treatment of Ischemic Heart Disease

1.4. Management and Treatment of NSTEACS
- 1.4.1. The Heart Attack Code
- 1.4.2. Thrombolytic Treatment
- 1.4.3. Percutaneous Treatment

1.5. Technical Considerations in the Surgical Treatment of Ischemic Heart Disease I
- 1.5.1. Cannulation: Exposure of the Coronary Arteries
- 1.5.2. Types of Grafts: Graft Extraction
- 1.5.3. Graft Configuration: Types of Anastomoses
- 1.5.4. Compound Grafts

1.6. Technical Considerations in the Surgical Treatment of Ischemic Heart Disease II
- 1.6.1. Non-ECC Surgery
- 1.6.2. Flow Measurement of Coronary Grafts
- 1.6.3. MIDCAB: TECAB. Robotics
- 1.6.4. Results





1.7. Technical Considerations in the Surgical Treatment of Ischemic Heart Disease III
- 1.7.1. Acute Ischemic Mitral Insufficiency
- 1.7.2. Post-Infarction VSD
- 1.7.3. Free Wall Breakage
- 1.7.4. Ventricular Aneurysm

1.8. Technical Considerations in the Surgical Treatment of Ischemic Heart Disease IV
- 1.8.1. Surgery for Chronic Ischemic Mitral Insufficiency
- 1.8.2. Coronary Artery Surgery Combined with Peripheral Vascular Disease
- 1.8.3. Coronary Surgery and Pre-Operative Antiplatelet Therapy

1.9. Cardiogenic Shock Management
- 1.9.1. Medical Treatment
- 1.9.2. IABP
- 1.9.3. ECMO
- 1.9.4. Ventricular Assistance Devices

1.10. Relevant Studies in Ischemic Heart Disease
- 1.10.1. SYNTAX
- 1.10.2. EXCEL and NOBLE: Left Main Coronary Artery Pathology
- 1.10.3. ARTS Arterial Grafts
- 1.10.4. FAME: Multivessels

The pace of your studies is up to you. Customize and adapt it to suit your needs. Enroll now”

05

Methodology

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

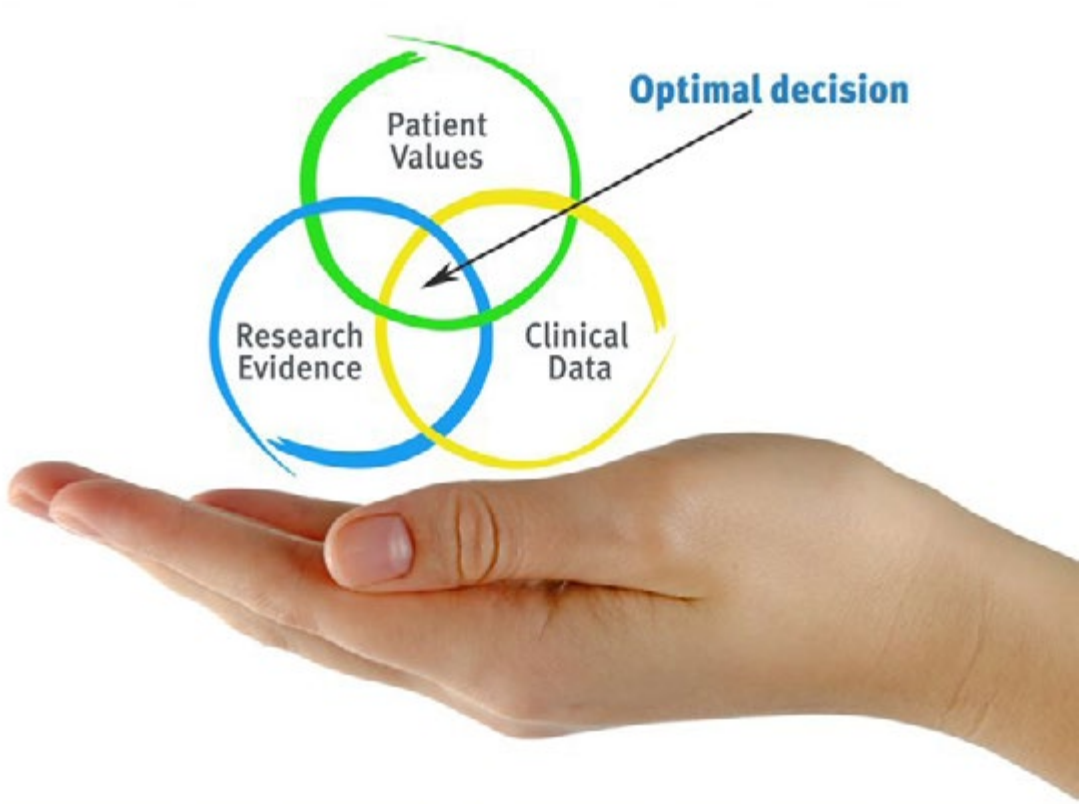
This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.

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.

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:

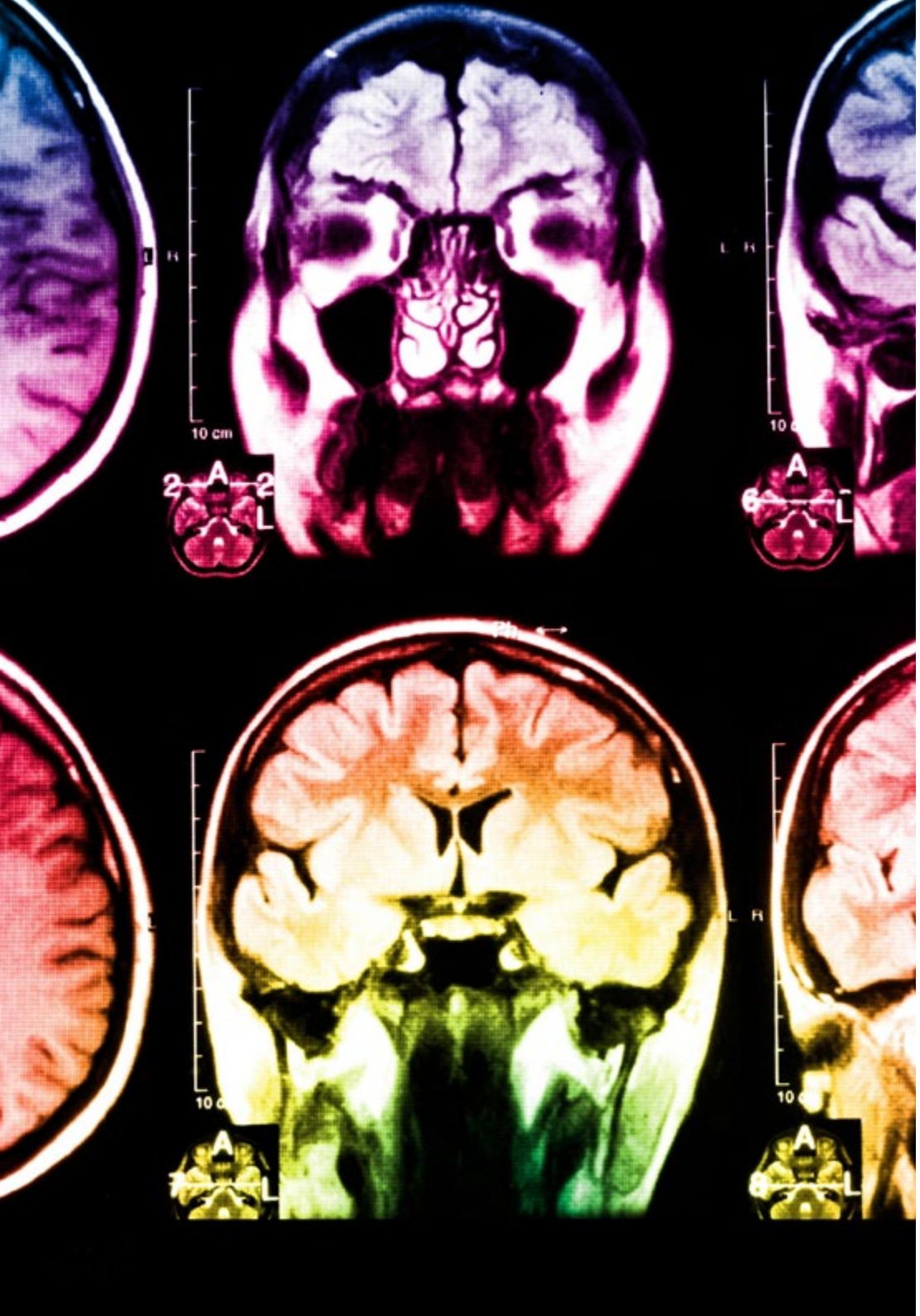
1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better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

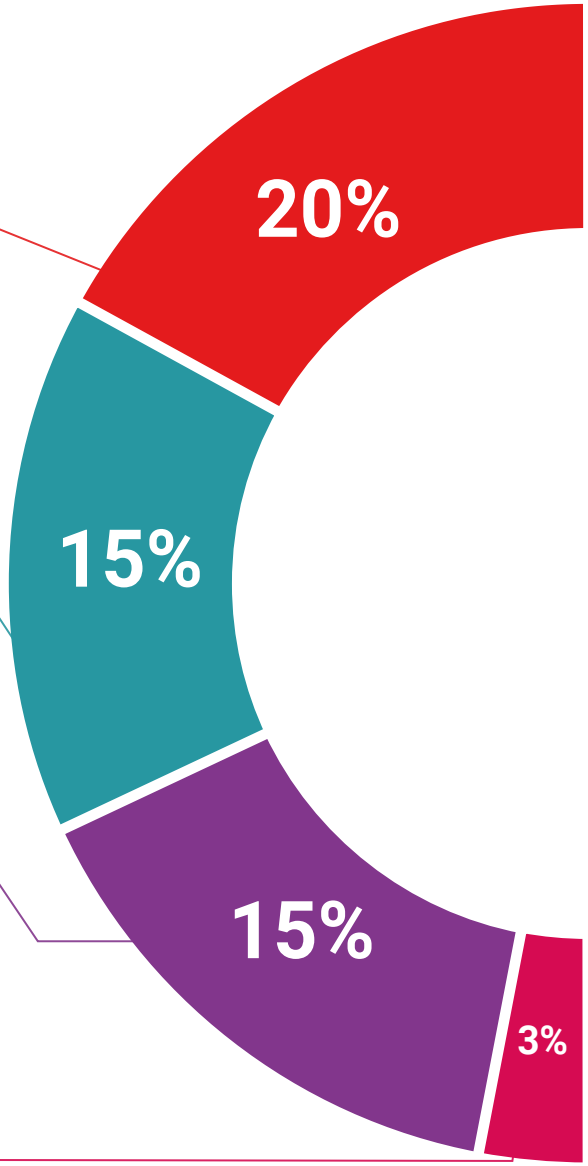
Interactive Summaries

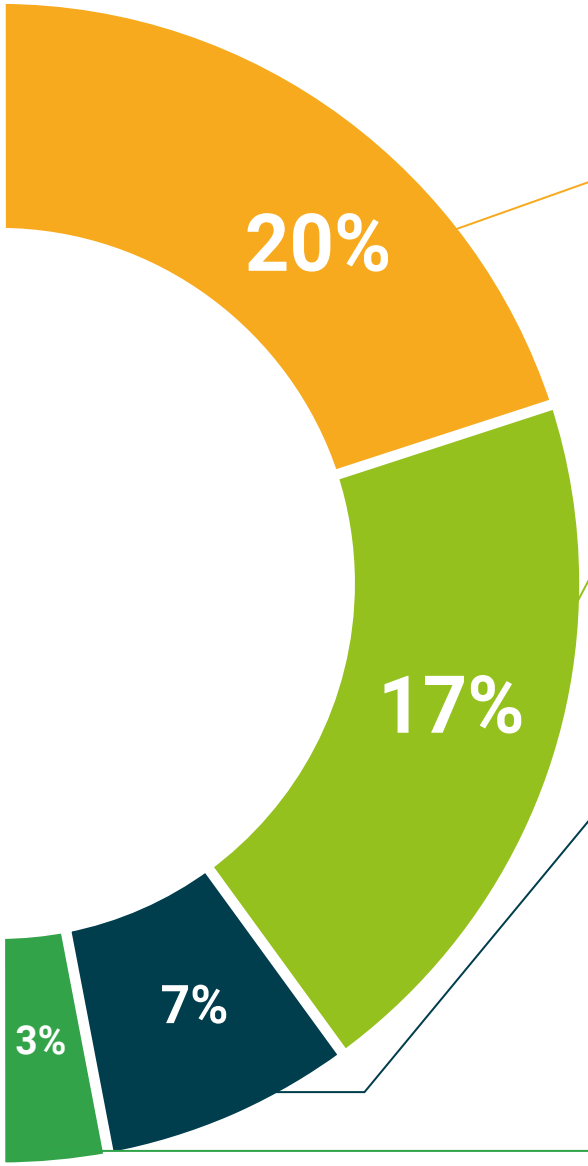
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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 Ischemic Heart Disease guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.

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 Ischemic Heart Disease** 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.

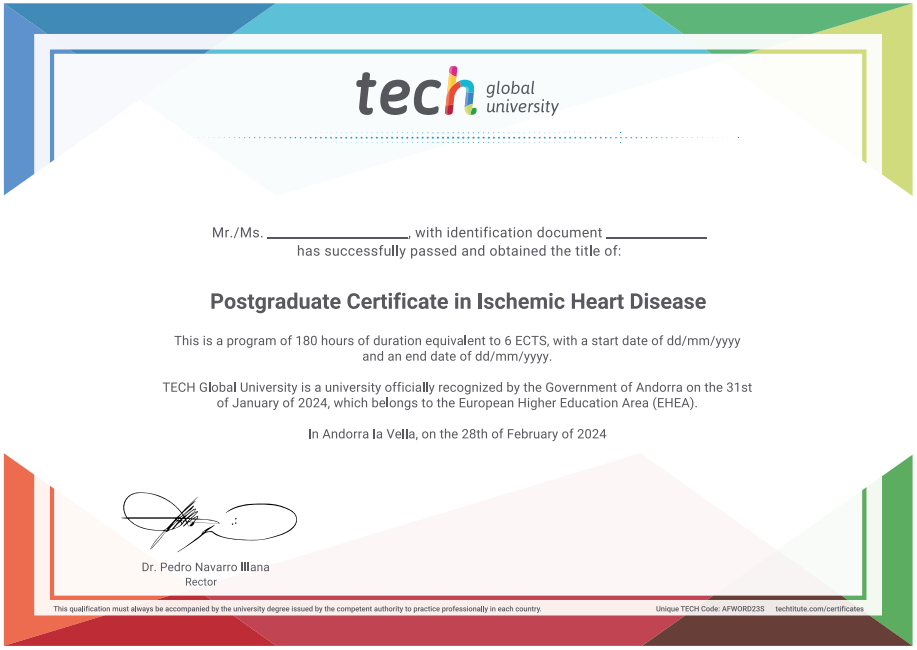
This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Ischemic Heart Disease**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**


tech global university

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

Postgraduate Certificate in Ischemic Heart Disease

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

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

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

Dr. Pedro Navarro Illana
Rector

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country. Unique TECH Code: AFWORD23S techtitute.com/certificates

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

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