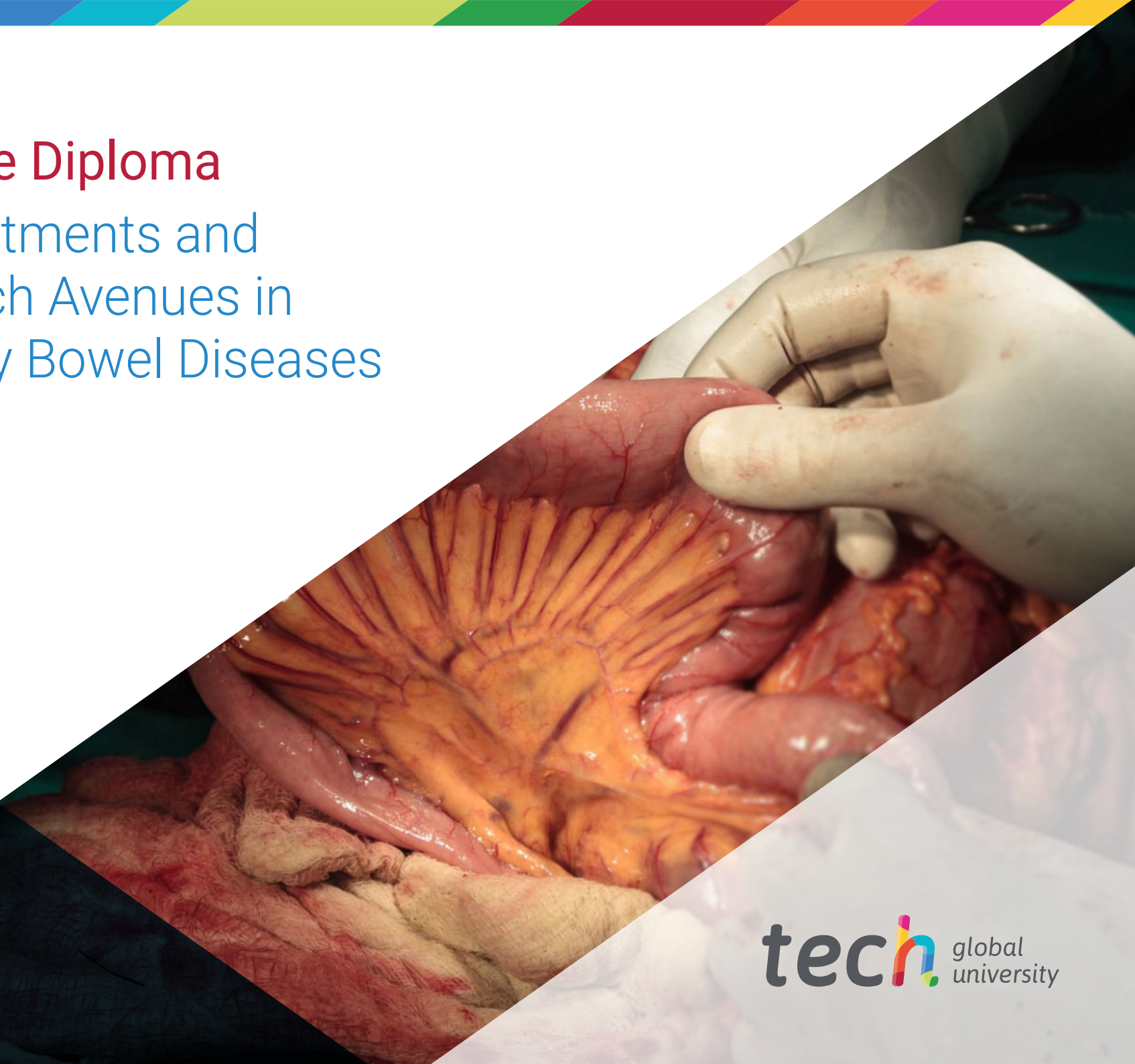


# Postgraduate Diploma

Surgery, Treatments and  
New Research Avenues in  
Inflammatory Bowel Diseases





## Postgraduate Diploma Surgery, Treatments and New Research Avenues in Inflammatory Bowel Diseases

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

Website: [www.techtute.com/us/medicine/postgraduate-diploma/surgery-treatments-new-research-avenues-inflammatory-bowel-diseases](http://www.techtute.com/us/medicine/postgraduate-diploma/surgery-treatments-new-research-avenues-inflammatory-bowel-diseases)

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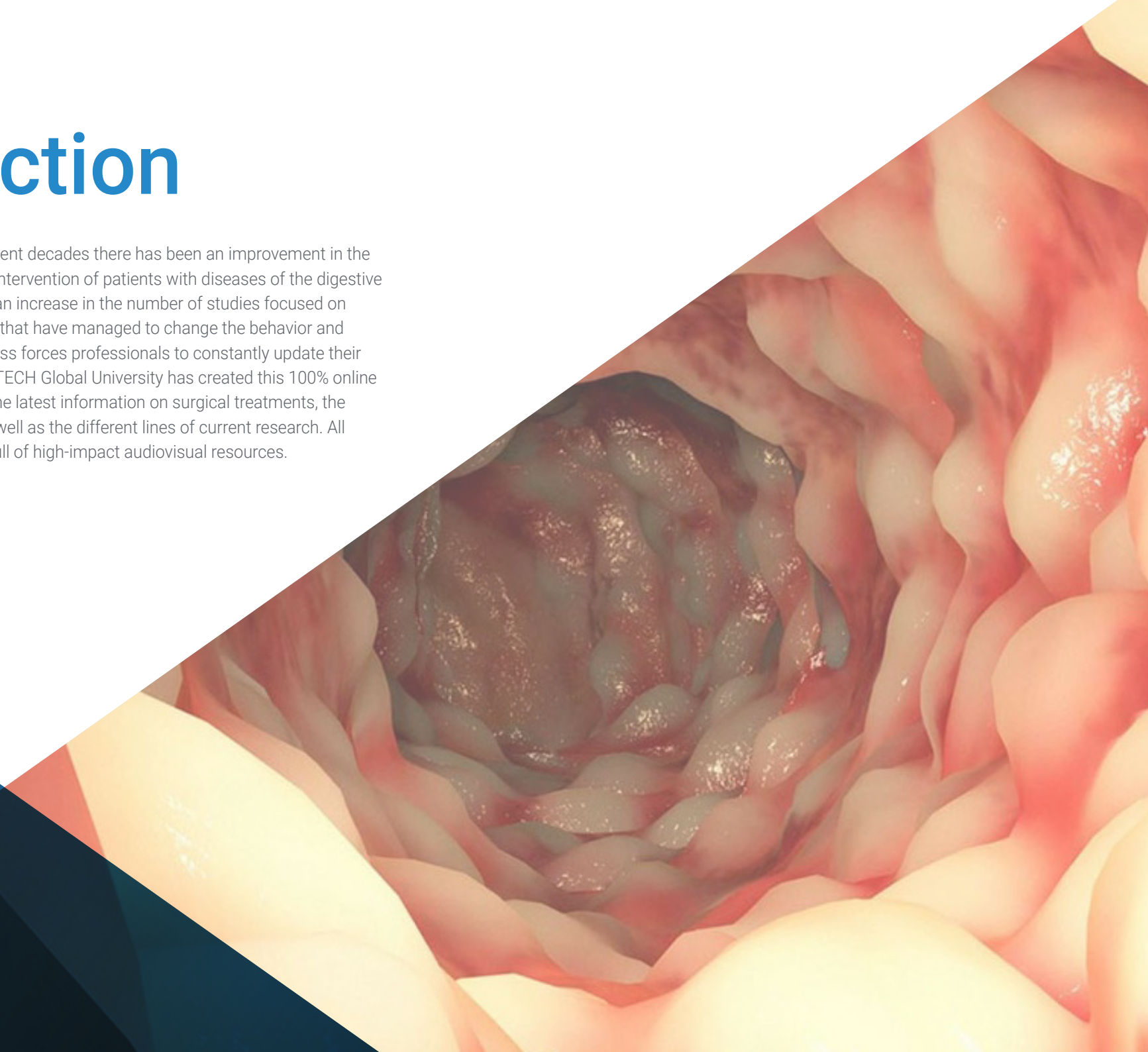
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# 01

# Introduction

Thanks to technical advances, in recent decades there has been an improvement in the devices used for the diagnosis and intervention of patients with diseases of the digestive system. In addition, there has been an increase in the number of studies focused on the search for biological treatments that have managed to change the behavior and evolution of the disease. This progress forces professionals to constantly update their knowledge in this area. That is why TECH Global University has created this 100% online degree, which offers the specialist the latest information on surgical treatments, the use of probiotics and prebiotics, as well as the different lines of current research. All presented in an innovative format, full of high-impact audiovisual resources.







“

*A 100% online University Expert, which adapts to the needs of professionals who wish to update their knowledge, without neglecting their work and personal responsibilities”*

The complexity of surgical treatments in patients with inflammatory digestive pathologies, the presentation of comorbidities and complications has decreased in recent years, thanks to the improvement of diagnostic and interventional techniques. In addition, scientific studies have made it possible to trace different treatment routes with biological drugs that act against different inter- and intracellular mediators of the disease, such as TNF- $\alpha$ , different interleukins or the JAK protein, among others.

Given this reality, there is no doubt that medical professionals must be aware of the advances that are being made in the approach to patients with inflammatory digestive diseases. For this reason, this academic institution offers this University Expert, which will lead you to obtain the most exhaustive and scientific information on Surgery, Treatments and New Research Avenues in Inflammatory Bowel Diseases.

A program that will allow them to keep abreast of the main lines of research that will mark the future of knowledge of the disease in the coming years, both in concepts of etiopathogenesis, and in improving complementary tests to establish diagnosis.

To this end, the specialists will be provided with innovative pedagogical resources. These will lead them to deepen studies on new pathophysiology pathways regarding new genes involved in the development of pathologies, the intestinal microbiota and its relationship with the development of inflammatory bowel disease. In addition, they will be able to delve into the latest diagnostic techniques and new biological treatments.

Professionals have an excellent opportunity to take a program in a 100% online and flexible format. You only need an electronic device with internet connection to access the syllabus hosted on the virtual platform. This University Expert is an ideal option for those seeking to update their knowledge through a quality university degree.

This **Postgraduate Diploma in Surgery, Treatments and New Research Avenues in Inflammatory Bowel Diseases** contains the most complete and up-to-date scientific program on the market. The most important features include:

- The development of clinical cases presented by experts in Digestive 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
- Latest information on Surgery, Treatments and New Research Avenues in Inflammatory Bowel Diseases
- Practical exercises where the self-assessment process can be carried out to improve learning
- An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course
- 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



*This program will lead you to delve into the most effective strategies in the introduction, maintenance and discontinuation of biological treatments”*

“

*With this degree you will get an update on the approach to the patient in situations of pregnancy or lactation and with inflammatory disease in the digestive tract”*

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.

*TECH Global University uses the Relearning method with professional will be able to reduce the long hours of study and memorization.*

*This program will allow you to deepen in the latest scientific information on Surgery, Treatments and New Research Pathways in Inflammatory Digestive Diseases.*





# 02 Objectives

The University Expert in Surgery, Treatments and New Research Avenues in Inflammatory Bowel Diseases is aimed at facilitating the updating of professional physicians specialized in the digestive area. For this purpose, TECH Global University provides physicians with pedagogical tools in which the latest technology applied to the academic field has been used.







“

*A program that will take you through case studies to keep you up to date with the advances in new endoscopic techniques”*





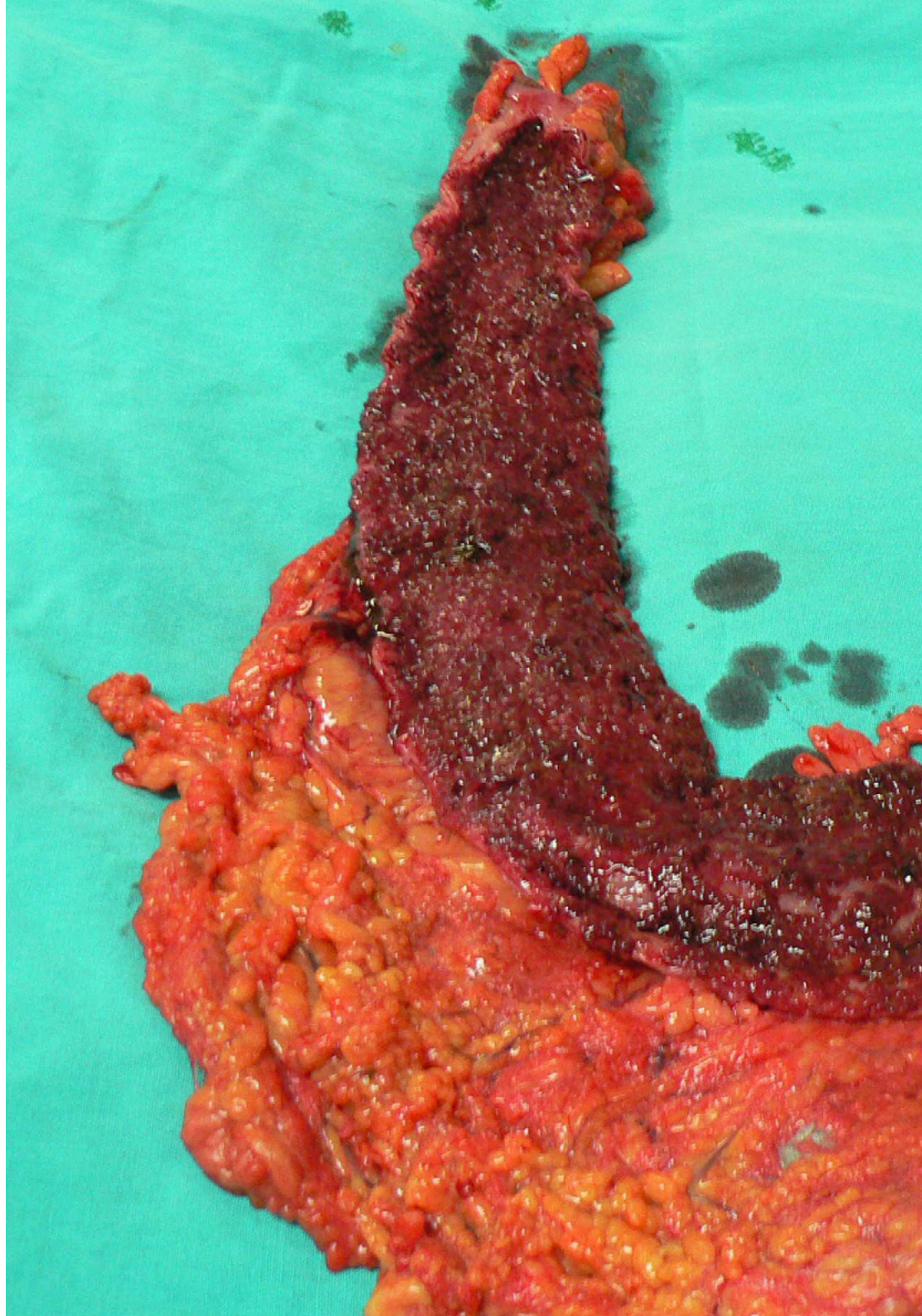
## General Objectives

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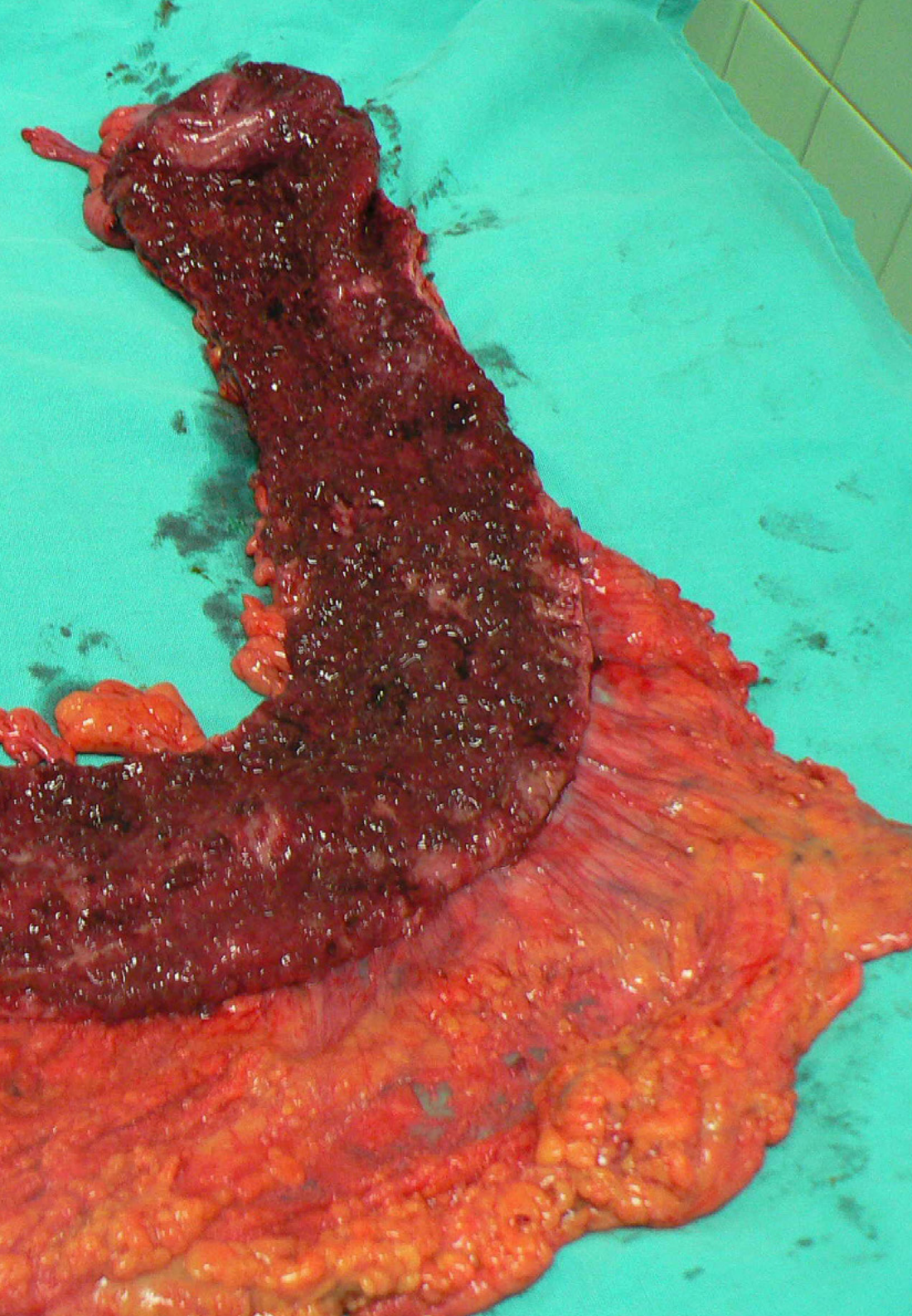
- ♦ Update the knowledge of the origin, as well as the current scientific state of diagnosis and treatment of inflammatory bowel disease
- ♦ Manage nutritional and psychological aspects of the disease
- ♦ Manage different situations of this disease throughout life (childhood, senescence, pregnancy, lactation, controlled disease or outbreaks)

“

*In just 6 months you will be up to date with new avenues of research on the main inflammatory digestive diseases”*







## Specific Objectives

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### Module 1. Inflammatory Bowel Disease Surgery

- ♦ Delve into the current indications according to clinical guidelines for surgical treatment in patients with Inflammatory Bowel Disease
- ♦ Specialize in the different surgical techniques available
- ♦ Be aware of the complications that may occur, as well as the medical management of recurrence prevention in previously operated patients
- ♦ Manage surgical indications in special situations, mainly perianal pathology
- ♦ Point out innovations in surgical approach techniques in patients with Inflammatory Bowel Disease

### Module 2. Inflammatory Bowel Disease Treatment

- ♦ Manage non-biologic systemic treatment in the different phases of Inflammatory Bowel Disease
- ♦ Master the different biologic drug options available in inflammatory bowel disease
- ♦ Optimize treatment according to available clinical guidelines
- ♦ Know management of medical treatment of patients in special situations (lactation, pregnancy, extraintestinal manifestations, etc.)

### Module 3. New Research Avenues in Inflammatory Bowel Disease

- ♦ Update research studies in genetics, etiopathogenesis, gut microbiota relationship and nutrigenomics with Inflammatory Bowel Disease
- ♦ Update clinical trials with drugs that explore new routes of action against inter- and intracellular communication molecules
- ♦ Specialize in new endoscopic techniques, as well as artificial intelligence prototypes that may be useful for use in patients with Inflammatory Bowel Disease



03

# Course Management

To offer a more practical and rigorous perspective of Surgery, Treatments and New Research Avenues in Inflammatory Bowel Diseases, TECH Global University has selected a faculty with extensive experience in the area. As a result, all content has been created to provide the University Expert with a practical perspective based on the most current scientific rigor.





“

*The best team of experts in Digestive Medicine has elaborated all the multimedia content of this program, giving you access to the most rigorous clinical news”*

## International Guest Director

Considered as one of the best doctors by the Castle Connolly, Dr. Gil Melmed is a renowned Gastroenterologist highly specialized in the approach of Inflammatory Bowel Diseases. In this way, he has developed most of his career in health entities of international reference among which stands out the Cedars-Sinai Medical Center in California.

Among his main achievements, he has used innovative Computer Aided Detection devices in multiple colonoscopies. Therefore, he has demonstrated that these technological tools pertaining to Artificial Intelligence can significantly increase the identification of Adenomas or Polyps and improve the prevention of Colorectal Cancer. Along the same lines, he has promoted the IBD QORUS Quality Improvement Program, focused on the implementation of excellent practices and quality standards in the treatment of patients with Inflammatory Bowel Disease. Thanks to this, it has managed to optimize both medical results and user experience.

He also balances this work with his role as a clinical researcher. In fact, he has developed numerous studies focused on subjects such as new treatments for the management of chronic inflammation of the intestine, cutting-edge procedures aimed at perfecting postoperative care or techniques that ensure that individuals' responses to vaccines are effective and safe. Consequently, he has spearheaded a number of sophisticated strategies that have enabled individuals to experience adequate recovery following their surgical procedures.

Committed to the advances in this health field, he participates as a speaker in different international scientific congresses. There he has shared his experience using advanced diagnostic tests, such as Balloon Enteroscopy. He has also increased the knowledge of health professionals on the most optimal methods to treat Crohn's Disease and Ulcerative Colitis.





## Dr. Melmed, Gil

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- Director of Clinical Trials at the Center for Inflammatory Bowel Diseases at Cedars-Sinai Medical Center in Los Angeles, California
- President of the American Gastroenterological Association's Committee on Inflammatory Bowel Diseases
- Clinical Investigator at Cedars-Sinai Medical Center
- Editor of the "American Journal of Gastroenterology"
- Residency at Cedars-Sinai Medical Center
- M.D. from Albert Einstein College of Medicine
- Master of Science in Clinical Research, University of California, California
- B.S. in Medical Sciences, University of Pennsylvania
- Fellowship in Gastroenterology from University of California
- Board Certified by the American Board of Internal Medicine
- Crohn's and Colitis Foundation National Scientific Advisory Board
- Co-Chair of the IBD QORU Quality Improvement Program



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

# 04

# Structure and Content

The curriculum of this university degree has been designed to offer medical professionals the latest advances in Surgery, Treatments and New Research Pathways in Inflammatory Digestive Diseases. This will enable specialists to keep abreast of the diagnostic and interventional techniques currently in use. Information will be available 24 hours a day, through an excellent library of multimedia resources.





“

*A curriculum that features multimedia pills that you can easily access from any electronic device with an internet connection”*

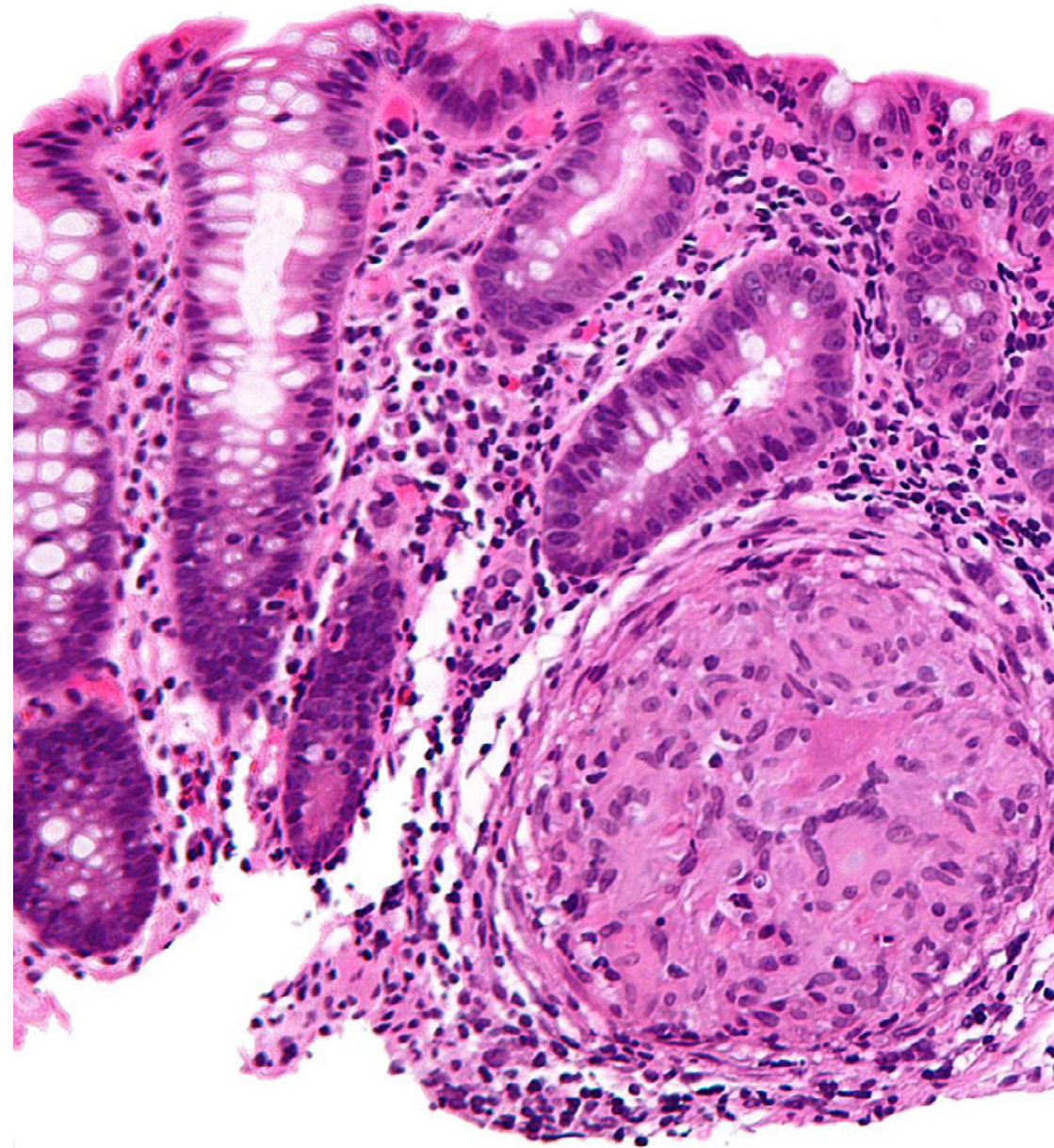


### Module 1. Inflammatory Bowel Disease Surgery

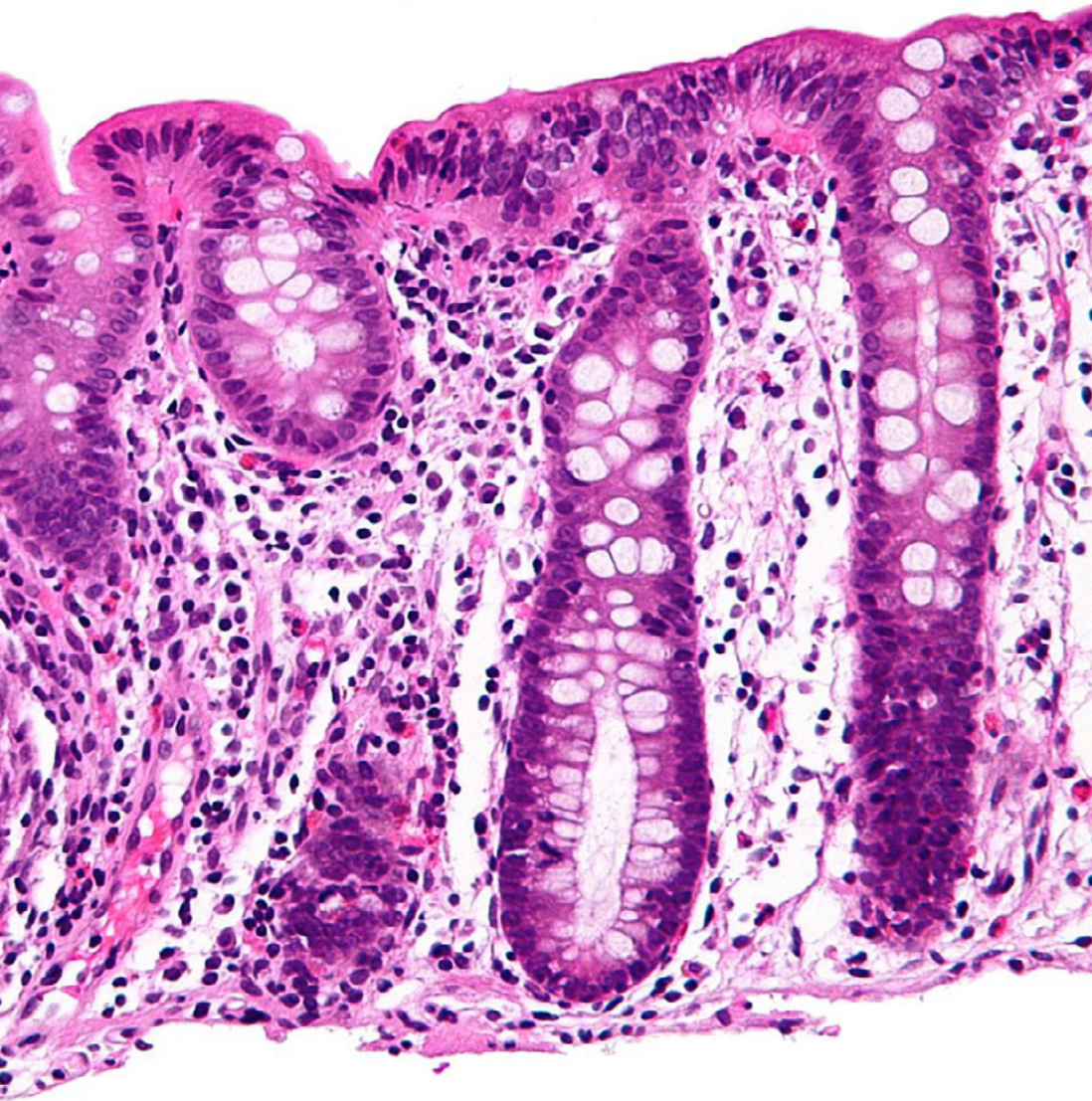
- 1.1. Indications for Surgical Treatment in Ulcerative Colitis
- 1.2. Indications for Surgical Treatment in Crohn's Disease
- 1.3. Indications for Surgical Treatment in Perianal Pathology
- 1.4. Surgical Techniques in Inflammatory Bowel Disease
- 1.5. Reservoir Pathology
- 1.6. Stomata Types and Management
- 1.7. Medical Treatment After Surgery in Inflammatory Bowel Disease
- 1.8. Complications of Surgical Treatment in Inflammatory Bowel Disease
- 1.9. Robotic Surgery in Inflammatory Bowel Disease
- 1.10. Single Port Surgery in Inflammatory Bowel Disease

### Module 2. Inflammatory Bowel Disease Treatment

- 2.1. Aminosalicylates
- 2.2. Systemic and Topical Corticosteroids
- 2.3. Immunomodulators and Immunosuppressants
- 2.4. Biological Treatments: Anti-TNF
- 2.5. Biological Therapies: Other Therapeutic Targets
- 2.6. Immunogenicity of Biological Treatments
- 2.7. Optimization of Treatment in Inflammatory Bowel Disease
- 2.8. Strategies in the Introduction, Maintenance and Discontinuation of Biologic Treatments
- 2.9. Other treatments
  - 2.9.1. Antibiotics
  - 2.9.2. Supplements
  - 2.9.3. Probiotics and Prebiotics
  - 2.9.4. Miscellaneous
- 2.10. Treatment in Special Situations
  - 2.10.1. Pregnancy
  - 2.10.2. Nursing
  - 2.10.3. Extraintestinal Manifestations







### Module 3. New Research Avenues in Inflammatory Bowel Disease

- 3.1. Etiopathogenesis: New Genes Involved
- 3.2. Predisposing Pathways to Inflammatory Mechanisms
- 3.3. Role of the Microbiota and the Microbiome in the Development of Inflammatory Bowel Disease
- 3.4. Fecal Transplantation in Inflammatory Bowel Disease
- 3.5. Inflammatory Bowel Disease Nutrigenomics
- 3.6. New Biological Treatments in Inflammatory Bowel Disease
- 3.7. Stem Cells and Inflammatory Bowel Disease
- 3.8. Apheresis Techniques in Inflammatory Bowel Disease
- 3.9. Precision Medicine. Systems Biology
- 3.10. Artificial Intelligence in Inflammatory Bowel Disease



*This university degree brings you closer to the use of artificial intelligence in the diagnosis of inflammatory bowel diseases”*

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.

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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 Diploma in Surgery, Treatments and New Research Avenues in Inflammatory Bowel Diseases guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma 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 Diploma in Surgery, Treatments and New Research Avenues in Inflammatory Bowel Diseases** 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 Diploma in Surgery, Treatments and New Research Avenues in Inflammatory Bowel Diseases**

Modality: **online**

Duration: **6 months**

Accreditation: **18 ECTS**



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personalized service innovation

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development language

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**Postgraduate Diploma**  
Surgery, Treatments  
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