

# Professional Master's Degree

## Endometriosis



## Professional Master's Degree Endometriosis

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Global University
- » Credits: 60 ECTS
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/medicine/professional-master-degree/master-endometriosis](http://www.techtute.com/us/medicine/professional-master-degree/master-endometriosis)

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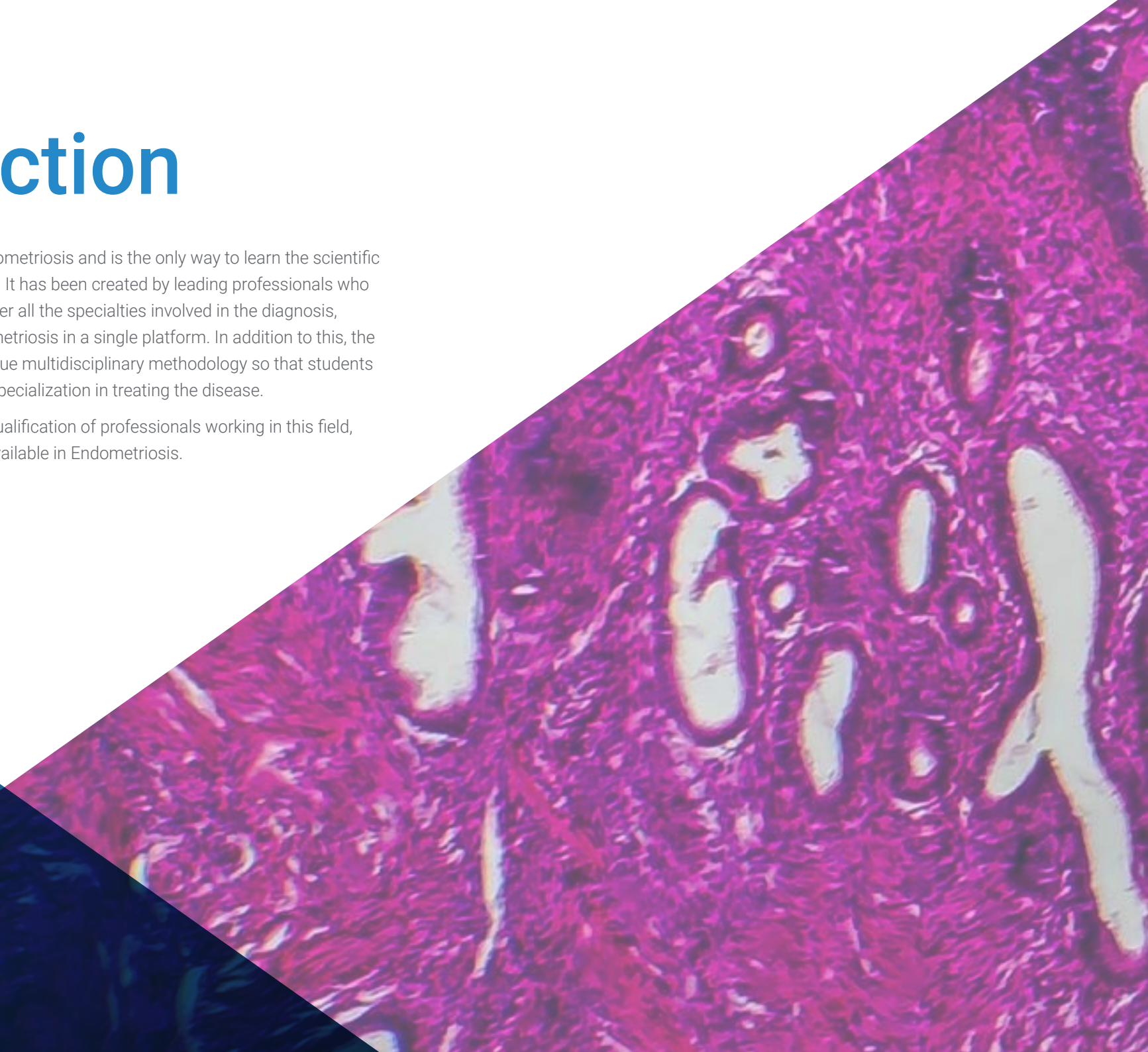
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# 01

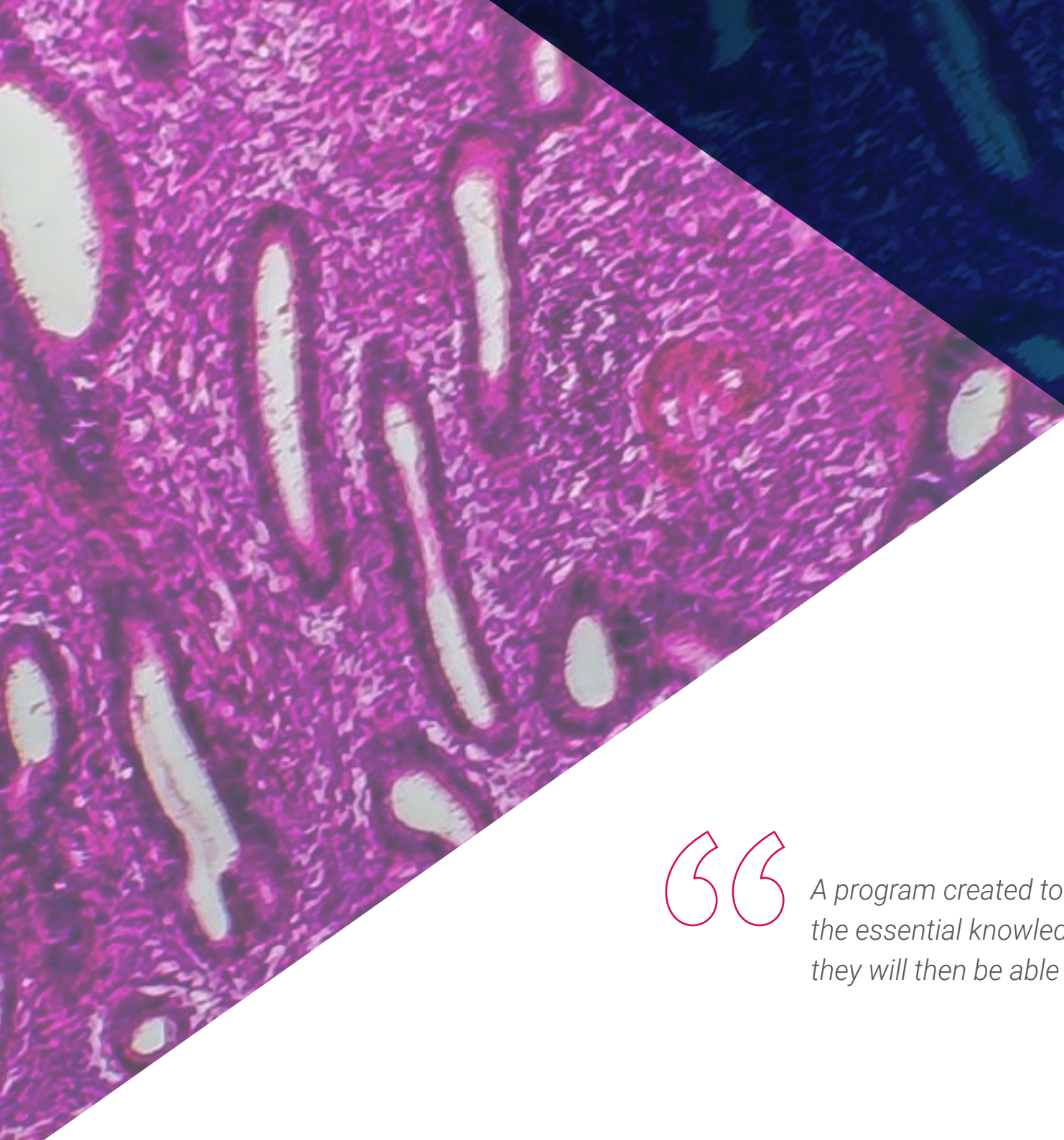
# Introduction

This is the leading program on Endometriosis and is the only way to learn the scientific and global approach to the disease. It has been created by leading professionals who embody excellence, bringing together all the specialties involved in the diagnosis, monitoring and treatment of Endometriosis in a single platform. In addition to this, the program is delivered through a unique multidisciplinary methodology so that students can acquire the highest degree of specialization in treating the disease.

TECH has set out to enhance the qualification of professionals working in this field, offering them the best education available in Endometriosis.







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*A program created to guide professionals through the essential knowledge in Endometriosis, which they will then be able to apply in their daily practice”*

This high quality program will cover the protocols used daily in Endometriosis Units through hands-on teaching.

Students will have the opportunity to learn how to use and interpret both new technologies and the most current genetic tests in the early diagnosis of Endometriosis.

Different perspectives of both surgical and medical treatments will be provided, as well as all the necessary information for correct monitoring and prevention of complications.

In the same way, a combined perspective on concomitant diseases, such as autoimmune diseases or sterility, will be addressed.

This program is designed to help professionals treat Endometriosis patients more effectively, and provide effective education on the mechanisms of diagnosis, treatment and management of Endometriosis through practical and theoretical teaching provided by leading professors.

Through the knowledge and understanding gained, the student will be capable of working independently in the comprehensive assessment of Endometriosis, as well as being able to make decisions about its evolutionary course. Furthermore, in turn, they will be able to move on to become a certified Endometriosis specialist.

For all these reasons, TECH has designed this Professional Master's Degree, which will provide the professional with specialized knowledge that will help them develop a comprehensive approach to their patients from a multidisciplinary point of view, all thanks to the content developed by physicians from different specialties. It is an intensive program, designed to help students learn about the technologies, materials and treatments found in this discipline and also includes a complete perspective of the techniques used in Endometriosis, allowing students to specialize in an effective and responsible way. In this way, this course provides high-level training that aims for excellence.

In addition, its 100% online format will allow you to study from wherever you want, without the need to travel or adhere to rigid class timetables.

This **Professional Master's Degree in Endometriosis** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ Case studies presented by experts in Endometriosis
- ♦ 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
- ♦ New developments in Endometriosis Techniques
- ♦ Practical exercises where self-assessment can be used to improve learning
- ♦ Special emphasis on innovative methodologies in Endometriosis techniques
- ♦ 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



*Expand your knowledge through this Professional Master's Degree and specialize in Endometriosis in order to achieve excellence in this field"*

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*This Professional Master's Degree is the best investment you can make when choosing a refresher program for two reasons: in addition to updating your knowledge in Endometriosis, you will obtain a Professional Master's Degree from TECH Global University"*

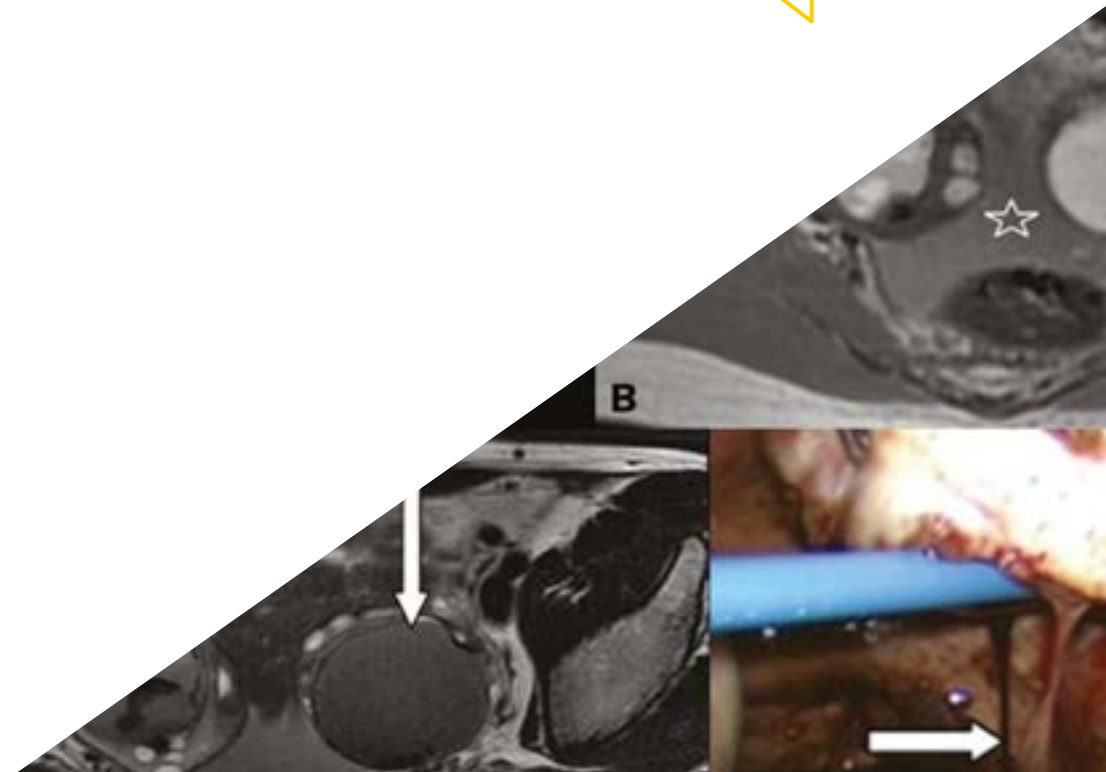
The teaching staff includes medical professionals who contribute their experience to this program, as well as renowned specialists from leading societies and prestigious universities.

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 learn in real situations.

This program is designed around Problem-Based Learning, whereby the physician must try to solve the different professional practice situations that arise throughout the program. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts in Endometriosis.

*Do not hesitate to take this program with us. You will find the best teaching material with virtual lessons.*

*This 100% online Professional Master's Degree will allow you to balance your studies with your professional work while increasing your knowledge in this field.*





# 02 Objectives

The Endometriosis program is oriented towards enhancing the professional's performance, using the latest advances and most innovative treatments in the sector, helping them to achieve superior knowledge that allows them to act with total confidence in the cases that arise in their practice.

The background of the slide features a large, diagonal, grayscale ultrasound image of a pelvic region. A prominent, bright red, linear structure is visible, likely representing an endometrioma. The image is partially obscured by a blue geometric shape in the bottom-left corner and a white rectangular box containing the text 'endometrioma'.

**endometrioma**



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*At TECH, our objective is to offer you the most complete program in Endometriosis so that you reach a higher level of expertise which will propel you to an elite professional level”*



## General objectives

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- ♦ Develop educational and professional expertise in all the core areas of Endometriosis, giving the student the appropriate knowledge, understanding and professional skills to improve their management of patients with this chronic disease
- ♦ Develop leadership skills in Endometriosis, so that you will be able to form a multidisciplinary team focused on this pathology
- ♦ Acquire an understanding of the processes involved in the etiopathogenesis and pathophysiology of endometriosis, as well as their epidemiological aspects, which will guarantee adequate knowledge to provide a correct clinical history of the disease
- ♦ Achieve sufficient skills to make a diagnostic approach to the patient through the clinical symptoms they present and broaden knowledge about less-common symptoms
- ♦ Explore the different diagnostic approaches to Endometriosis from a critical perspective of routine clinical practice, analyzing the combined diagnostic criteria
- ♦ Gain knowledge of diagnostic techniques in research ranging from immunology to genetics and epigenetics
- ♦ Develop the skills to know how to interpret results and in which situations to apply them
- ♦ Achieve competent skills for the correct classification of Endometriosis
- ♦ Know the types of Endometriosis and their severity according to different classifications
- ♦ Develop a comprehensive understanding of adenomyosis and, likewise, the ability to diagnose, monitor and treat patients affected by this disease
- ♦ Know, in depth, the current fields of research on adenomyosis
- ♦ Gain in-depth knowledge of Endometriosis from the treatment point of view
- ♦ Deepen knowledge of new medical therapies and new therapeutic lines of research
- ♦ Acquire knowledge of the most appropriate surgical techniques depending on the patient's situation and the type of Endometriosis
- ♦ Increase knowledge about complications and their treatment
- ♦ Acquire in-depth knowledge of the medical and preventive aspects of the effects of Endometriosis from the field of reproductive medicine
- ♦ Know the perspectives of embryology and the in vitro fertilization laboratory
- ♦ Know, in depth, the associations with different pathological situations
- ♦ Expand knowledge of the management of Endometriosis associated with autoimmune diseases
- ♦ Learn more about cancer risk and the different diagnostic and preventive approaches



*With this program we want to help you achieve your goal of acquiring superior knowledge in this in-demand field"*



## Specific objectives

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### Module 1. Epidemiological, Etiological and Pathophysiological Aspects of Endometriosis

- ♦ Accurately know the definition of the disease and the difficulty in reaching this diagnosis throughout history
- ♦ Know about the most recent epidemiological studies, through a critical perspective and gain knowledge of the determinants of Endometriosis in the population and its distribution
- ♦ Strengthen knowledge of the most current theories of the etiology of the disease
- ♦ Understand the associations of disease origin with known pathogenesis
- ♦ Acquire in-depth knowledge of the advances in the understanding of the pathogenesis of Endometriosis and the knowledge of the pathophysiology, especially of the immune system and stem cells
- ♦ Acquire the necessary skills to understand the genomic studies of Endometriosis, as well as its relationship with familial aggregation and other diseases
- ♦ Acquire in-depth knowledge of the epigenetic factors related to Endometriosis within the most current studies, knowing the possible effects of these factors in association with the etiology of the disease
- ♦ Understand the functioning of the immune system and its close relationship, both in the origin of the disease and its consequences
- ♦ Acquire the essential knowledge to correctly and independently assess the histology that diagnoses the disease
- ♦ Develop awareness of how the disease affects patients' quality of life, with the most recent population-based studies providing a closer view of the patients' experience
- ♦ Develop guidelines for appropriate anamnesis focused on the diagnosis of the disease, paying special attention to family history and concomitant diseases

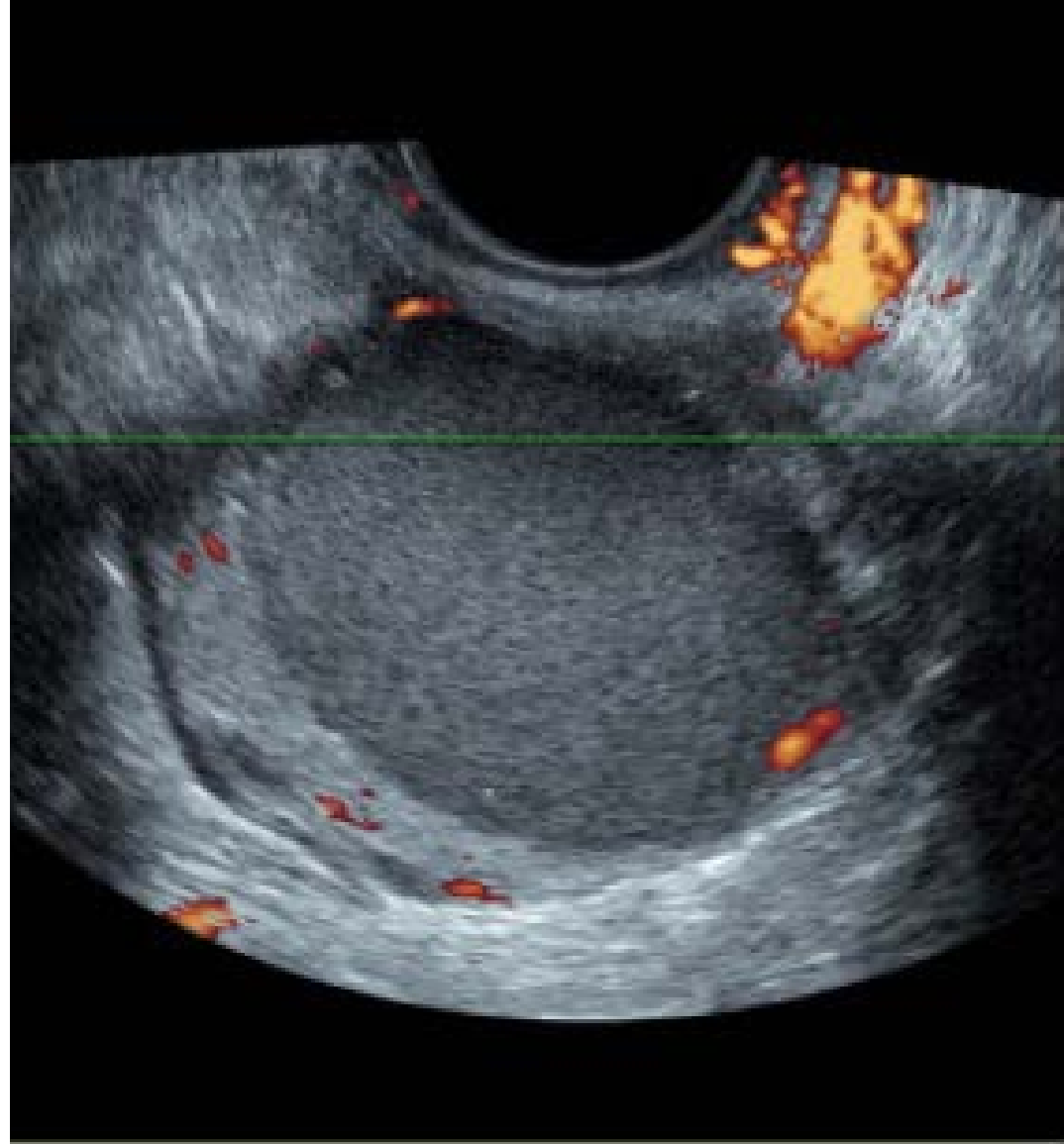
### Module 2. Clinical Evaluation of the Endometriosis Patient

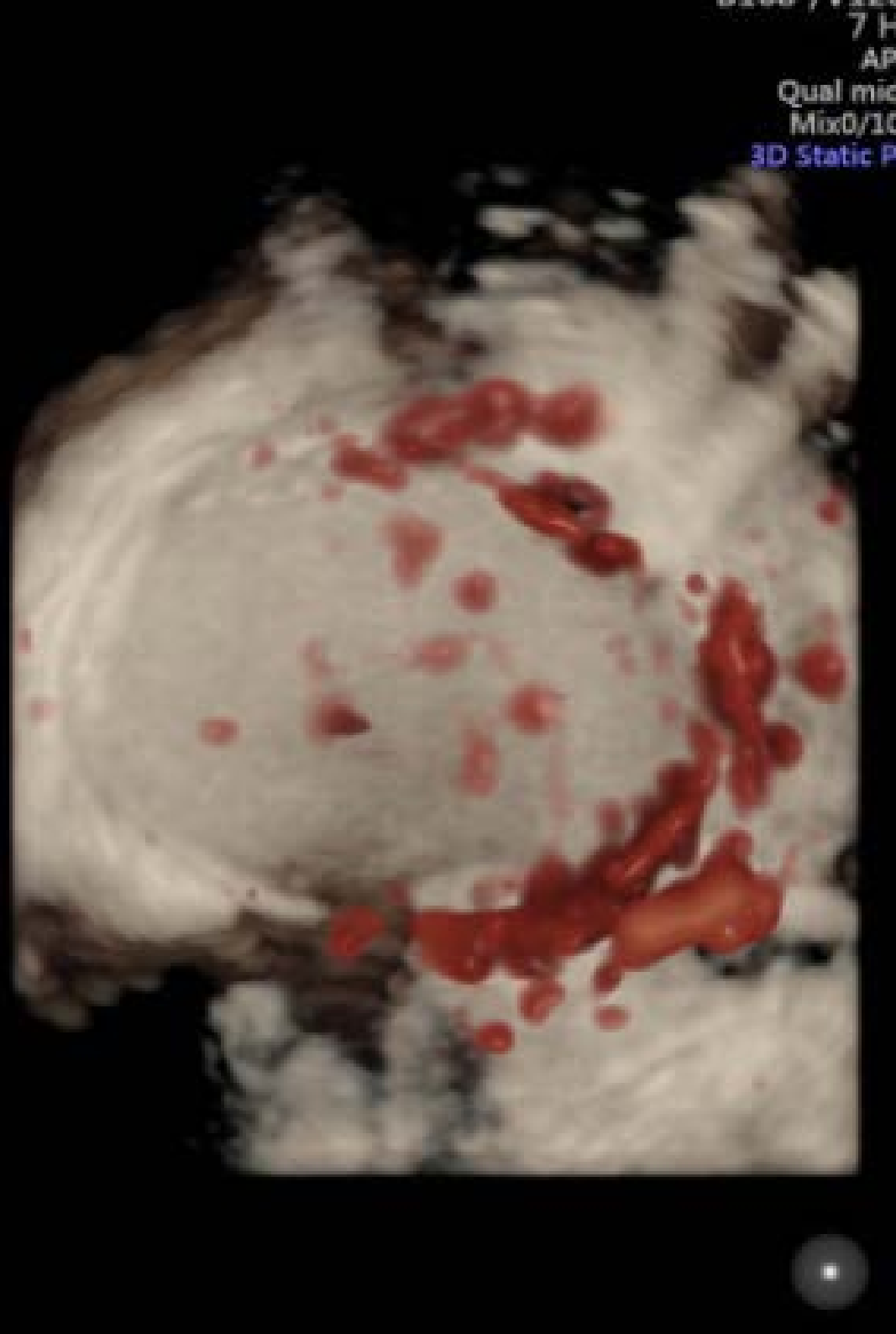
- ♦ Acquire in-depth knowledge of the variability of symptoms that occur along with the disease and how this is independent of the severity of the disease
- ♦ Explore dysmenorrhea from a scientific point of view, know the surveys used and know the differential diagnosis with other diseases
- ♦ Develop an in-depth understanding of the diagnosis of hypermenorrhea, know the complementary tests used and know the differential diagnosis
- ♦ Assess chronic pelvic pain as a distinct entity, encompassing any pain that is independent of menstruation, delving into the origins of the pain and the tests to assess it
- ♦ Acquire the skills to perform a scrupulous anamnesis of the urinary symptoms that may appear, knowing the differential diagnosis and knowing which complementary tests are necessary
- ♦ Acquire in-depth knowledge of the most frequent digestive tract symptomatology and the concomitant pathologies with Endometriosis and adequately evaluate their diagnosis
- ♦ Evaluate symptoms that coincide with menstruation, address the possible extraperitoneal involvement of the disease and know the complementary tests and differential diagnosis
- ♦ Acquire in-depth knowledge of the diagnosis of migraines associated with Endometriosis, its characteristics, its prevalence, the evaluation of fatigue as a symptom of Endometriosis and the impact that this symptom can have on the quality of life of patients and how to address it
- ♦ Develop knowledge of psychological disorders affecting the disease



### Module 3. Diagnosis of Endometriosis

- ♦ Learn the importance of an early diagnosis of Endometriosis and know, in depth, the current state of diagnostic delay with its causes and consequences
- ♦ Know, in depth, how the age of the patient at the time of diagnosis influences the evolution of the disease and how to act in terms of complementary tests and selected treatments
- ♦ Acquire the skills for an appropriate diagnosis through a rigorous anamnesis and know the concept of clinical diagnosis and the opinion of the different scientific societies
- ♦ Delve into fundamental skills for an ultrasound diagnosis of ovarian and tubal endometriosis and ways to use two-dimensional and three-dimensional ultrasound applications in order to improve imaging and have a more accurate diagnosis
- ♦ Know how to diagnose deep endometriosis, learn how to assess the pelvic anatomy by transvaginal ultrasound and diagnose Endometriosis of the anterior and posterior compartments, knowing how to prepare the patient prior to the ultrasound
- ♦ Discern when to request complementary tests and know which ones are appropriate at each point in time, in order to know how to convey proper patient evaluation from other specialties
- ♦ Acquire in-depth knowledge of the surgical diagnosis, when and how to perform it, and foresee the possible complications that may appear
- ♦ Apply the benefits of combined clinical and ultrasound diagnostics with respect to surgical diagnosis, with an in-depth understanding of the risks, benefits and application in clinical practice
- ♦ Establish how to do follow-ups with the patient with Endometriosis and how often, as well as which complementary tests are necessary in each case





#### Module 4. Diagnostic Approaches to Endometriosis

- ◆ Develop an in-depth understanding of the glycoproteins used as tumor markers in the diagnosis of Endometriosis and inquire about the usefulness of the CA 125 marker and its uses in clinical practice
- ◆ Know how the different growth and vascular factors analyzed as biomarkers of Endometriosis are related, knowing their pathogenic basis for such relationship, also understanding the studies of VEGF as a biomarker of Endometriosis
- ◆ Acquire the fundamental knowledge of immunology in Endometriosis and which interleukins are studied as biomarkers, developing the ability to critically read the studies performed
- ◆ Develop a deeper understanding of the hormonal profile of patients with Endometriosis, knowing which hormones have been studied as biomarkers and understanding the hormonal profile of patients at high risk of Endometriosis from a pathophysiological perspective
- ◆ Gain in-depth knowledge of the most researched and promising urinary biomarkers, and understand the pathogenic basis for their appearance in urine and why they are difficult to diagnose accurately
- ◆ Acquire the skills needed to understand the significance of proteomics and metabolomics in the study of diagnostic markers of Endometriosis, understand the limitations of the technique and evaluate its usefulness in the field of research
- ◆ Acquire in-depth knowledge of the proposed diagnostic tests based on microRNA studies, understand the significance of the study of these in association with the immune response, also taking into account the different immunity pathways with respect to microRNA and the limitations of the technique
- ◆ Develop a deeper understanding of lncRNA studies and their association with the diagnosis of Endometriosis and the difference with microRNA studies and the pathways of action in the pathogenesis of Endometriosis
- ◆ Acquire knowledge of the most frequently found polymorphisms, knowing their association with other diseases, especially autoimmune diseases, and learn about the latest advances in this field in the early diagnosis of Endometriosis

### Module 5. Classification of Endometriosis

- ♦ Understand comprehensively the most current classification of Endometriosis and the 5 types of Endometriosis and the different classifications
- ♦ Know everything related to superficial endometriosis as a unique entity and its relationship with the symptomatology and controversies related to its diagnosis and treatment
- ♦ Deepen understanding of adnexal endometriosis, the implications and theories of tubal endometriosis implicated in the etiopathogenesis of endometriosis and the effect of ovarian endometriosis on follicular function
- ♦ Understand the capacity of endometriosis to invade the anterior compartment, knowing the extent to which endometriotic lesions can reach the genitourinary tract and affect bladder and kidney function
- ♦ Know the extent of the disease affecting the gastrointestinal tract and its consequences, understanding the complications that occur and the degree of invasion that Endometriosis can reach
- ♦ Understand, in depth, the adenomyosis as Endometriosis affecting the uterus and the association with the different types of Endometriosis and the complications that occur
- ♦ Develop a deeper understanding of the extraperitoneal involvement of Endometriosis, the most frequent types, its association with other types of Endometriosis and what complications can be expected
- ♦ Know how to classify deep endometriosis, based on the ENZIAN classification, understanding the implications of this classification in terms of severity and orienting about the complementary tests based on this classification
- ♦ Develop a proposed new classification based on ultrasound findings, the UBESS classification, its application and predictive utility prior to surgery

- ♦ Develop a deeper understanding of the classification of the American reproductive society as the most widely used and its association with the severity of patients' symptoms, as well as the association with their reproductive capacity
- ♦ Understand how to interpret the "Endometriosis Fertility Index" classification for accurate patient fertility counseling and its association with other classifications
- ♦ Learn about the new classification proposed by the American Society of Gynecologic Endoscopy and its useful application in surgical practice

### Module 6. Adenomyosis

- ♦ Understand Adenomyosis in depth, being able to diagnose, monitor and treat the disease according to the highest clinical standards
- ♦ Know the differences, in pathogenic terms, that make adenomyosis a unique entity, and associate the pathogenesis of the disease with the complications that can occur together with adenomyosis
- ♦ Acquire the skills to perform a histological study of adenomyosis, the different findings in an adenomyotic uterus and know the correlation of these findings with clinical and diagnostic parameters
- ♦ Deepen understanding of the established diagnostic criteria, their correlation with histological findings and the usefulness of three-dimensional ultrasound in the evaluation of the junctional zone and the diagnosis of adenomyosis
- ♦ Acquire the skills to interpret images based on the study of Nuclear Magnetic Resonance, knowing the diagnostic criteria and understanding when this complementary test is necessary
- ♦ Know the histological classification of the proposed adenomyosis, its correlation with the clinic, its usefulness and know the techniques used to obtain histological samples for such classification



- ♦ Know how to interpret the proposed ultrasound classification, how to perform this classification from the consultation, understanding what this diagnosis means in the prognosis of the disease
- ♦ Deepen understanding of the classification based on nuclear magnetic resonance, when this classification will be necessary and what benefits it brings in terms of prevention and prognosis
- ♦ Know, in depth, all the strategies for good control of adenomyosis symptoms, know which medical treatments are most effective and learn about radiological techniques as a non-invasive approach in the treatment of adenomyosis
- ♦ Know the surgical techniques in the surgical treatment of adenomyosis, with its risks and limitations and know the risks and benefits of radical surgery
- ♦ Be aware of the association of adenomyosis with uterine cancer and take this risk into account in follow-up and diagnostic testing, as well as in the surgical approach

### **Module 7. Medical Treatment of Endometriosis**

- ♦ Acquire knowledge of all non-invasive approaches in the management of disease symptomatology, adapting each strategy to a specific situation
- ♦ Deepen understanding of lifestyle changes that have scientific evidence in the improvement of the clinical condition caused by the disease
- ♦ Acquire skills in pain treatment through a series of drugs aimed at symptomatology control, know which drugs have proven to be more useful in Endometriosis and why
- ♦ Know about the combination of drugs in pain management
- ♦ Understand combined contraceptives as a strategy to control the symptoms of Endometriosis, and know the most-used and most-effective combinations depending on the route of administration

- ♦ Know what gestagens are and their usefulness in the treatment of Endometriosis, knowing their efficacy depending on the symptomatology, the type of Endometriosis and what their side effects are
- ♦ Deepen understanding of the treatment of Endometriosis by Dienogest, know the drug and its metabolism, as well as the effects on Endometriosis and its side effects
- ♦ Learn about Danazol as a specific treatment for Endometriosis and know its indications and uses, as well as its side effects
- ♦ Understand the usefulness of aromatase inhibitors in the treatment of Endometriosis and know their indications and limited usefulness
- ♦ Know all the GnRH agonist drugs with their route of administration and efficacy in Endometriosis and understand when it is indicated to use this treatment and the undesirable effects it causes
- ♦ Know the usefulness of GnRH antagonists in the treatment of Endometriosis, knowing the new GnRH antagonists with indication for Endometriosis and their beneficial effects and limitations
- ♦ Learn more about the most promising drugs under investigation and know the therapeutic goals with the scientific advances in each one of them

### **Module 8. Invasive Treatment of Endometriosis**

- ♦ Gain in-depth knowledge of the surgical treatments for Endometriosis and learn more about their applications and the potential risks and benefits of each one of them
- ♦ Understand superficial endometriosis from a surgical point of view with the application of the different techniques for its excision and its consequences
- ♦ Know how to apply the appropriate surgical techniques in the treatment of ovarian endometrioma in order to achieve minor damage in the ovarian reserve of the patient, knowing the different types of tubal surgery and intraoperative diagnostic techniques

- ♦ Deepen understanding of the surgical treatment of bladder Endometriosis, from a cystoscopic and laparoscopic point of view. Know the risks and consequent complications and their possible treatment
- ♦ Deepen understanding of deep endometriosis surgery at the level of the recto-vaginal septum and uterosacral ligaments, understand the risks and complications and which surgical techniques are the most appropriate in each case
- ♦ Acquire knowledge of the correct surgery to use in deep bowel endometriosis, know how to prepare the patients and the complementary tests required prior to surgery, and know what complications could arise in advance and know how to deal with them
- ♦ Acquire in-depth knowledge of how extraperitoneal endometriosis is approached surgically, from the perspective of the affected organs, the risks and benefits of such surgeries
- ♦ Know the applications of interventional radiology in the non-invasive treatment of peritoneal and extraperitoneal endometriosis and know in depth the indication of uterine artery embolization
- ♦ Acquire in-depth knowledge of the complications of Endometriosis after surgery, particularly how to deal with recurrences or the appearance of Endometriosis in the surgical scars and strategies to avoid such complications
- ♦ Learn about post-surgery protocols for Endometriosis with monitoring and complementary tests used for this monitoring

### **Module 9. Endometriosis and Fertility**

- ♦ Acquire in-depth knowledge of the pathophysiological bases that explain the sterility in a high percentage of patients affected by Endometriosis
- ♦ Know the ways in which ovarian reserve is affected by Endometriosis, developing an in-depth understanding of the evaluation of ovarian reserve and the link between diminished ovarian reserve and Endometriosis
- ♦ Deepen understanding of the diagnosis of infertility in patients affected by Endometriosis, know the pathologies commonly involved in the reproductive capacity and know which are the most commonly used diagnostic tests in each diagnosis

- ♦ Develop the algorithms used in Reproductive Medicine to know the strategies to follow depending on the patient's age, symptomatology and ovarian reserve, and when to indicate surgery as a method to improve reproductive capacity
- ♦ Acquire knowledge about oocyte cryopreservation for the preservation of future fertility, knowing the indication of this strategy in patients with Endometriosis, and the moment in which this strategy is performed
- ♦ Learn about the indication of artificial insemination in patients with infertility and Endometriosis, which protocols are used to obtain an optimal result and the pregnancy rates in patients with Endometriosis
- ♦ Know the indications of in vitro fertilization, which protocols are used in controlled ovarian stimulation and the usefulness of these prior to stimulation
- ♦ Acquire the necessary skills to advise on fresh embryo transfer versus elective freezing strategy, know the risks and benefits in terms of pregnancy rate
- ♦ Understand, in depth, how Endometriosis affects oocyte quality and consequently embryo quality, relating it to the different stages of the disease and to the success rate of treatments
- ♦ Deepen understanding of how pregnancy affects the evolution of Endometriosis, the risks of pregnancy in the patient, its follow-up and what consequences it has on the evolution of the pregnancy

### **Module 10. Endometriosis and Autoimmune Diseases and Other Pathological Conditions**

- ♦ Deepen understanding of the association between Endometriosis and autoimmune diseases, the pathological and genetic basis that unites them and the importance of the diagnostic search for Endometriosis in all patients affected by these diseases
- ♦ Deepen understanding of the association between Endometriosis and autoimmune diseases, the pathological and genetic basis that unites them and the importance of the diagnostic search for Endometriosis in all patients affected by these diseases

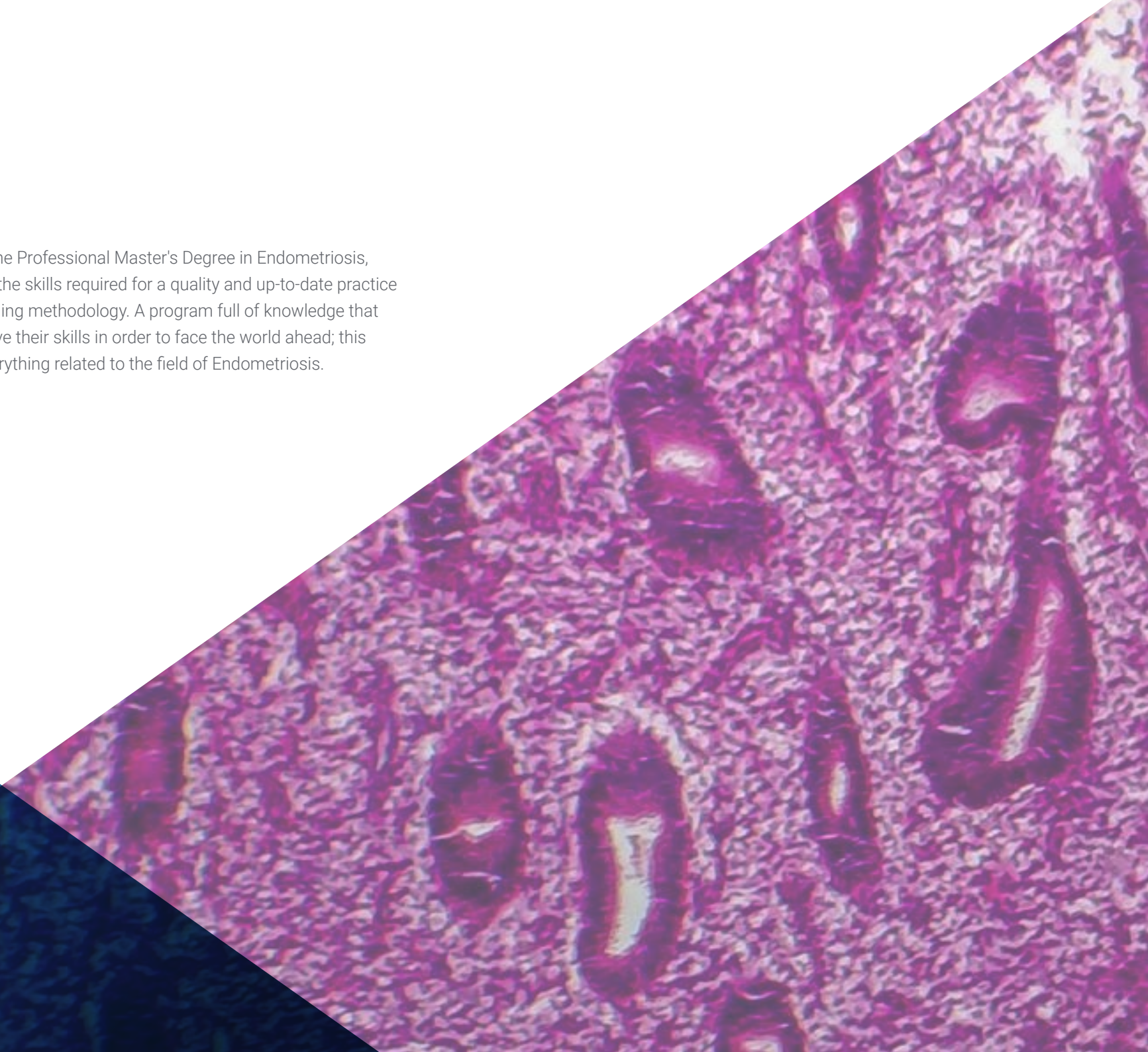


- ◆ Know about the close relationship of thyroid disease of autoimmune origin with Endometriosis and the treatment of thyroid disease as part of the control of Endometriosis symptomatology
- ◆ Deepen understanding of the association with inflammatory bowel diseases, having in-depth knowledge of the symptomatology that can mask Endometriosis and understand each of the inflammatory bowel diseases from the clinical and pathogenic point of view
- ◆ Know about celiac disease and its variants in depth and understand their association with Endometriosis and the improvement after symptomatology control
- ◆ Deepen understanding of the concordant symptomatology of irritable bowel syndrome and Endometriosis, critically evaluate whether they are independent entities or whether there is a masking of Endometriosis in patients diagnosed with irritable bowel syndrome
- ◆ Analyze the relationship between fibromyalgia and Endometriosis in the same patients and find out what causes the higher percentage and how it affects the underlying disease
- ◆ Know the correlation of Endometriosis with patients affected by allergies and allergic asthma, knowing the pathogenic basis for such association
- ◆ Deepen understanding of the state of the microbiota in patients with Endometriosis, know the state of the genital microbiota throughout the different stages of Endometriosis and their relationship with the immune status
- ◆ Understand the importance of the association with ovarian cancer both at the time of diagnosis and in the follow-up of the disease and know about the association with other types of cancer, such as thyroid cancer



# 03 Skills

After passing the assessments in the Professional Master's Degree in Endometriosis, the professional will have acquired the skills required for a quality and up-to-date practice based on the most innovative teaching methodology. A program full of knowledge that will allow the professional to improve their skills in order to face the world ahead; this way, they will be able to identify everything related to the field of Endometriosis.





A microscopic image of endometrial tissue, showing a dense layer of cells with numerous small, dark, oval-shaped structures, likely representing endometrial glands or stroma. The image is stained in shades of purple and pink.

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*Access the most up-to-date techniques  
and procedures to correctly address  
everything related to Endometriosis"*



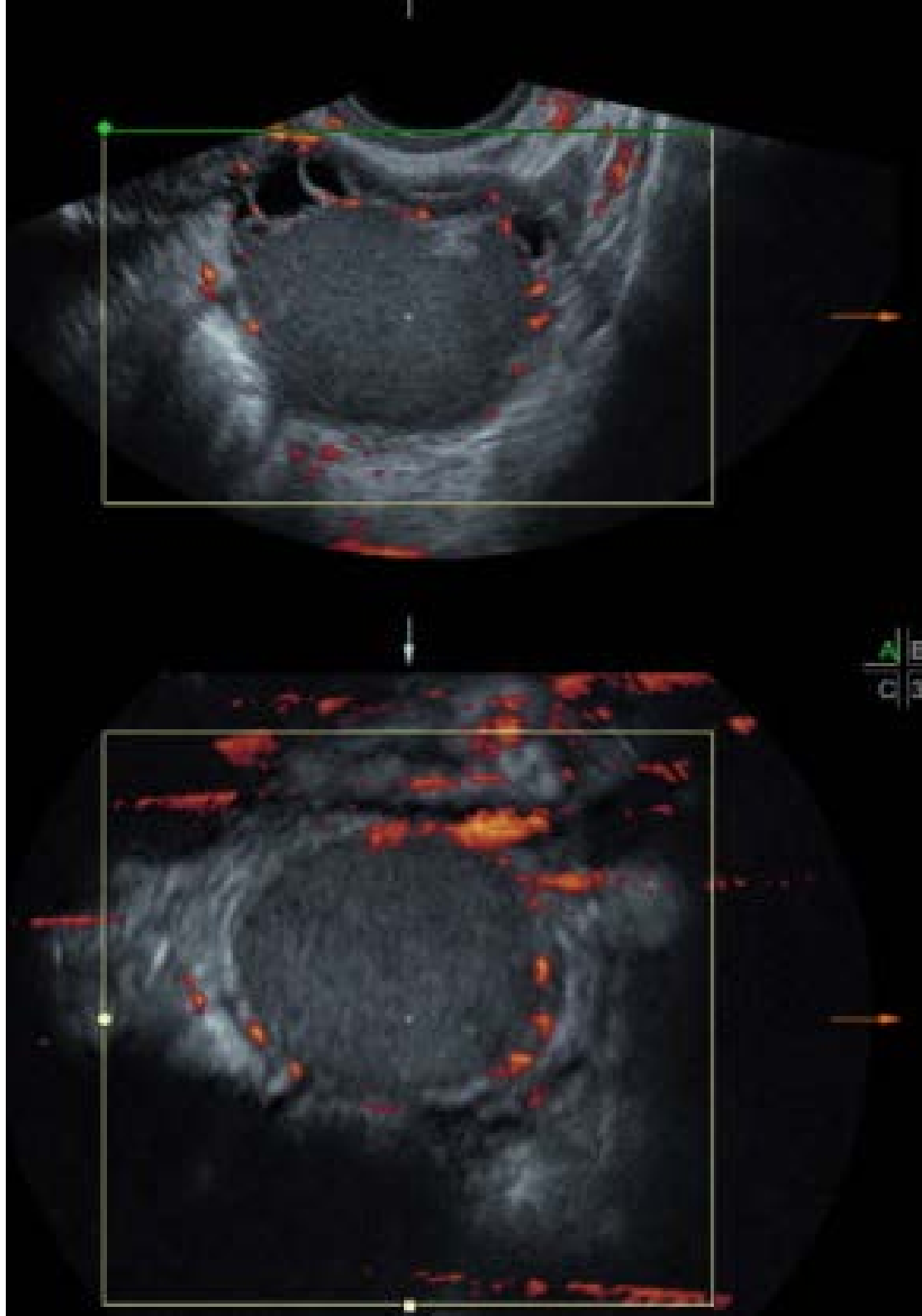
## General skills

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- Learn about the best approaches, treatments and interventions applied to Endometriosis
- Adapt the medical techniques applied to Endometriosis according to each patient's specific needs
- Improve the quality of life of patients, taking into account the complexity of Endometriosis and its physical and emotional impact from a holistic point of view

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*A unique program that will allow you to acquire new and up-to-date knowledge in the field of Endometriosis"*







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## Specific skills

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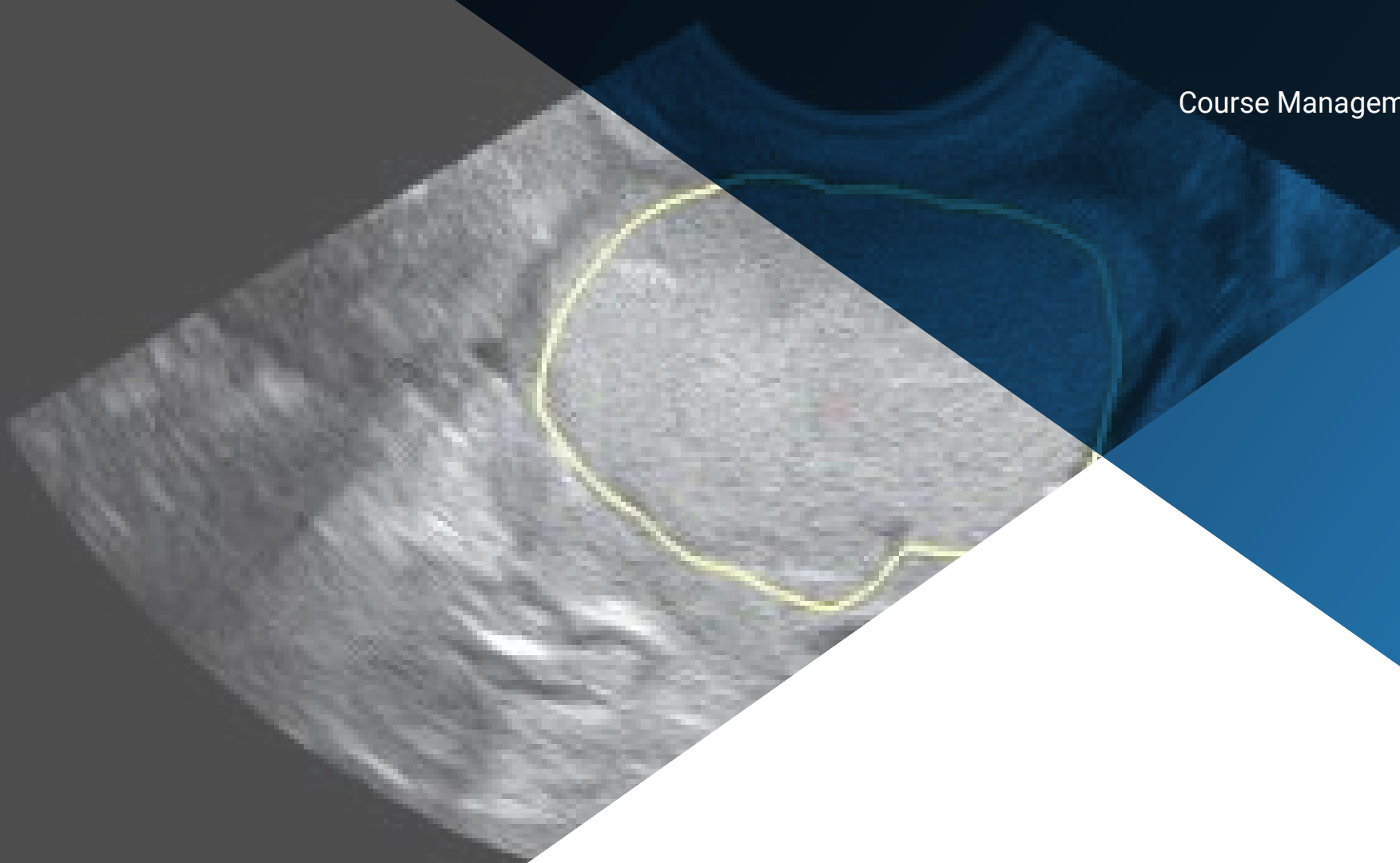
- ◆ Know how the different growth and vascular factors analyzed as biomarkers of Endometriosis are related
- ◆ Learn about the extent of the disease affecting the gastrointestinal tract and its consequences and understand the complications that occur and the degree of invasion that Endometriosis can reach
- ◆ Deepen understanding of lifestyle changes that have scientific evidence in the improvement of the clinical condition caused by the disease
- ◆ Understand the usefulness of aromatase inhibitors in the treatment of Endometriosis, their indications and limited usefulness
- ◆ Know about the patients' preparation and the complementary tests required prior to surgery, the complications and what they are in advance
- ◆ Critically evaluate whether we are talking about independent entities or whether there is a masking of Endometriosis in patients diagnosed with irritable bowel syndrome
- ◆ Know the indications for in vitro fertilization, knowing, in depth, the protocols used in controlled ovarian stimulation and the usefulness of preparation protocols prior to stimulation

04

# Course Management

The program includes in its teaching staff leading experts in Endometriosis, who contribute the experience of their work to this program. Additionally, other prestigious experts participate in its design and preparation, completing the program in an interdisciplinary manner.





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*Leading experts in Endometriosis  
have come together to share with  
you all their knowledge in this field"*

## Management



### Dr. Moliner Renau, Belén

- ♦ Director of the Endometriosis Unit, Bernabeu Institute
- ♦ Head of the Reproductive Medicine Ultrasound Department at the Bernabeu Institute
- ♦ Coordinator of the "Image and Fertility" Working Group of the Spanish Fertility Society
- ♦ Specialist in Obstetrics and Gynecology via MIR, Clinical University Hospital of Valencia
- ♦ PhD in Medicine and Surgery "Cum Laude", University of Valencia
- ♦ Master's Degree in Human Reproduction, Rey Juan Carlos University
- ♦ Master's Degree in Research Methodology, Autonomous University of Barcelona
- ♦ Advanced studies for the use of STATA in biomedical research, Autonomous University of Barcelona
- ♦ Expert in Medical Genetics, University of Valencia, Spain
- ♦ Master's Degree in Autoimmune Diseases
- ♦ University Certificate in Introduction to Regenerative Medicine: Biology and Applications of Human Stem Cells, University of Valencia



## Professors

### Dr. Abad De Velasco, Lorenzo

- ♦ Obstetrics and Gynecology Specialist in Reproductive Medicine Unit, Valencia General University Hospital, Spain

### Dr. Albero Amoros, Sonia

- ♦ Gynecologist at Accuna Clinic in Alicante, Spain

### Dr. Aranda López, Ignacio

- ♦ Head of Anatomic Pathology Department, Alicante General Hospital, Spain

### Dr. Bernabeu Pérez, Rafael

- ♦ Medical Director of the Bernabeu Institute and gynecologist at his clinic in Alicante
- ♦ Director of the Department of Reproductive Medicine of the Faculty of Medicine, Miguel Hernández University of Elche based at the Bernabeu Institute
- ♦ Director of the Department of Community Medicine and Reproductive Health, Miguel Hernández University

### Dr. Bernabeu García, Andrea

- ♦ Co-Medical Director at the Bernabéu Institute
- ♦ Coordinator of the Genetic and Reproductive Counseling Unit Bernabéu Institute
- ♦ Doctor of Medicine
- ♦ Especialist in Gynecology and Obstetrics, European Board and College of Obstetrics and Gynecology

### Dr. Castillo Farfán, Juan Carlos

- ♦ Gynecologist, Bernabeu Institute, Alicante, Specialist in Reproductive Medicine

### Dr. Cirillo, Paolo

- ♦ Gynecologist, Bernabeu Institute

### Dr. Esparza Soria, Alicia

- ♦ Gynecologist and Obstetrician, Vithas International Medimar Hospital

### Dr. Fabregat Reolid, Ana

- ♦ Director of the Clinical Analysis Department of the Bernabeu Institute
- ♦ PhD in Pharmacy and specialist in Human Reproductive Biology, Bernabeu Institute, Alicante

### Dr. Fuentes Rozalén, Ana

- ♦ Doctor specialized in Obstetrics and Gynecology
- ♦ Master's Degree in Advanced Gynecological Endoscopic Surgery, University of Valencia in 2015
- ♦ Gynecologist at Bernabeu Institute

### Dr. García-Ajofrín García-Lago, Cristina

- ♦ Specialist in Gynecology and Obstetrics, specialist in Reproductive Medicine, Bernabeu Institute, Madrid

### Dr. Galiana Ivars, María

- ♦ Department of Anesthesiology and Resuscitation, Alicante General University Hospital

### Dr. García Pastor, Irene

- ♦ Medical Specialist in Radiodiagnosis and head of the Breast Radiology Unit, Marina Baixa Hospital

### Dr. Gavilán Cabello, Cristina

- ♦ Specialist in Gynecology and Obstetrics, specialist in Reproductive Medicine, Bernabeu Institute, Palma de Mallorca

**Dr. Gomis, Cristina**

- ♦ Attending Physician, Gynecology and Obstetrics Service, Clinical Hospital of Valencia

**Dr. Guerrero Villena, Jaime**

- ♦ Embryologist specialized in oocyte and embryo cryopreservation. In vitro Fertilization Unit supervisor, Bernabeu Institute, Alicante

**Dr. Herencia Rivero, Alicia**

- ♦ Gynecologist specializing in Reproductive Medicine, Bernabeu Institute of Madrid

**Dr. López Lozano, Alicia**

- ♦ Nutritionist specialized in Endometriosis and reproductive disorders

**Dr. Llaneza González, Ángela**

- ♦ Medical Specialist in Gynecology and Obstetrics, Bernabeu Institute of Madrid

**Dr. Llacer Aparicio, Joaquín**

- ♦ Co-Medical Director of the Reproductive Medicine Department, Bernabeu Institute

**Dr. Lledo Bosch, Belén**

- ♦ Scientific Director of IBBiotech
- ♦ Doctor in Biology, specialist in Medical Genetics

**Dr. Lizán Tudela, César**

- ♦ Specialist in gynecology and obstetrics, Valencia Clinical University Hospital, Spain
- ♦ Associate Professor, University of Valencia
- ♦ Co-director of the Professional Master's Degree in Assisted Reproduction, UJI

**Dr. Luque Martínez, Lydia**

- ♦ Director of the Bernabeu Institute of Albacete. Specialist in Obstetrics and Gynecology, specializing in Reproductive Medicine

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- ♦ Specialist in Endocrinology, Hospital de Alcoy, Spain

**Dr. Martín Díaz, Rodolfo**

- ♦ Head of the Obstetrics and Gynecology Unit, Quirón Hospital Torrevieja

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- ♦ Head of the Gynecological Surgery Section, Bernabeu Institute

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- ♦ Specialist in Rheumatology, Manises Hospital, Valencia, Spain

**Dr. Morales Sabater, Ruth**

- ♦ Pharmacist, Specialist in Genetics and Molecular Biology, IBiotech

**Dr. Navarro Tellez, Pino**

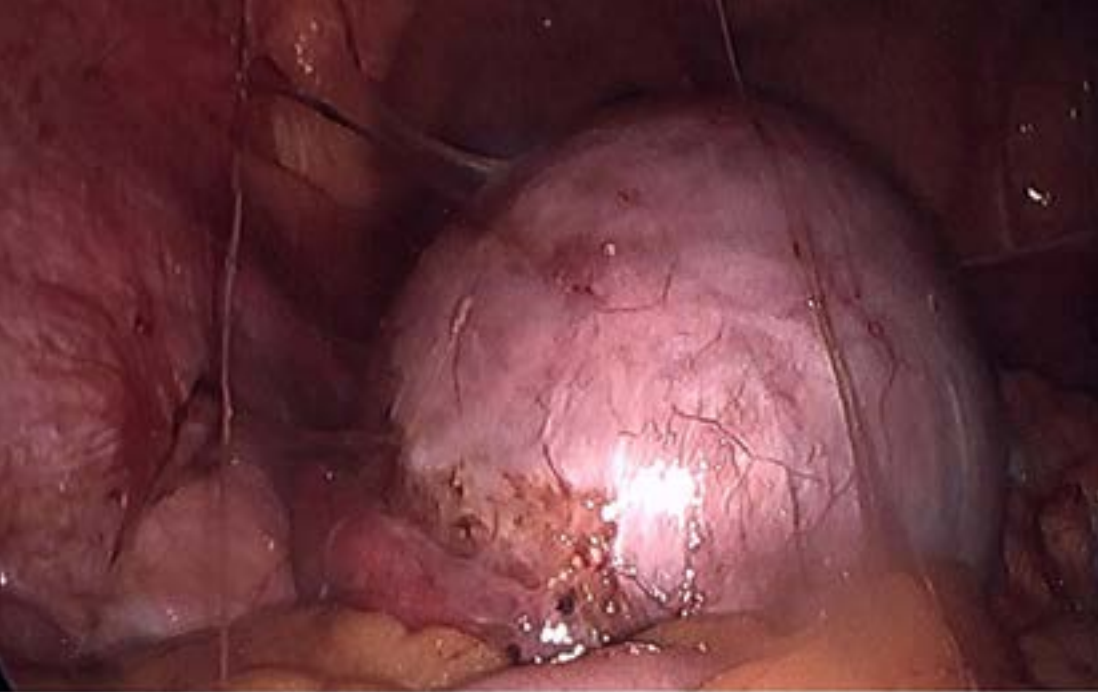
- ♦ Assistant Physician of the Endocrinology and Nutrition Section, Virgen de los Lirios de Alcoy Hospital
- ♦ Department Director of the Endocrinology Department, Bernabeu Institute

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- ♦ Gynecologist, Bernabeu Institute



**Dr. Prieto Chaparro, Luis**

- ♦ Urology Area Specialist, General University Hospital of Elche, Elche, Spain
- ♦ Urologist, Bernabeu Institute of Alicante

**Dr. Romera Agullo, Natalia**

- ♦ General Health Psychologist, Bernabeu Institute

**Dr. Romero Saavedra, Ruth**

- ♦ Gynecologist at Bernabeu Institute in Madrid

**Dr. Rodriguez Arnedo, Adoración**

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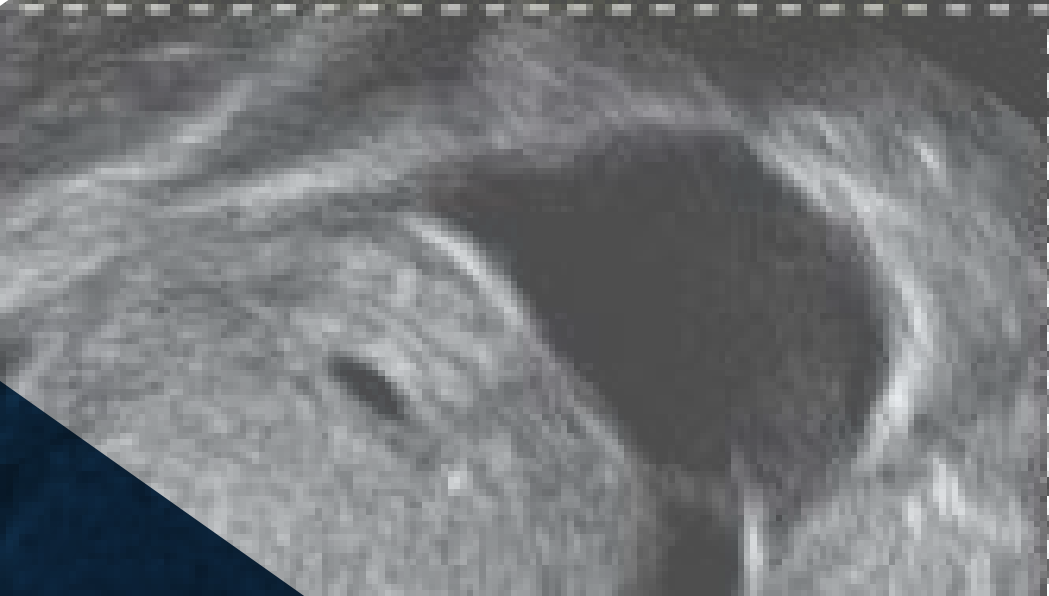


05

# Structure and Content

The structure of the contents has been designed by the best professionals in the field of endometriosis, with extensive experience and recognized prestige in the subject, backed by the volume of cases reviewed, studied and worked on, and with extensive mastery of new technologies applied to teaching.

A	B
C	3D



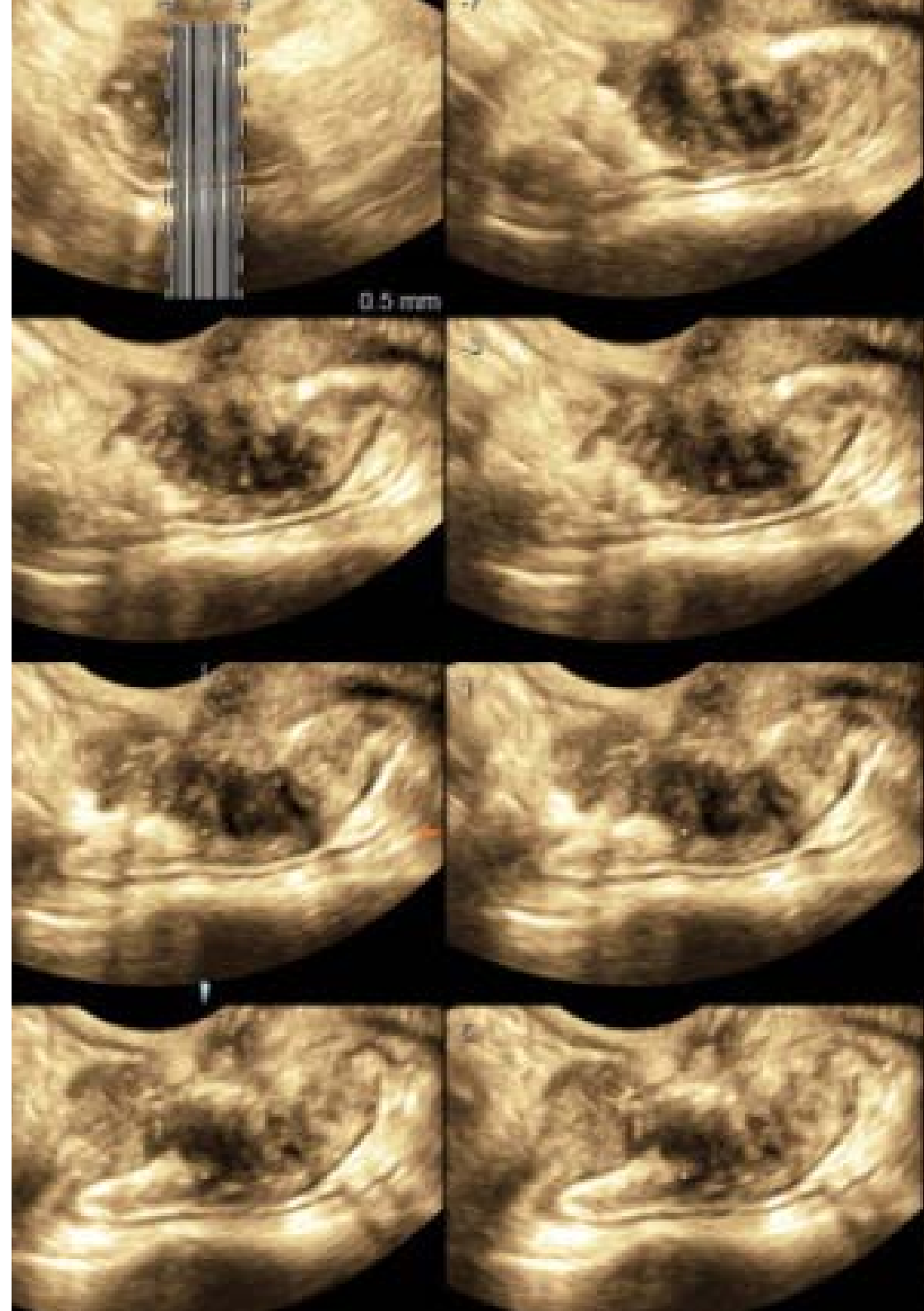


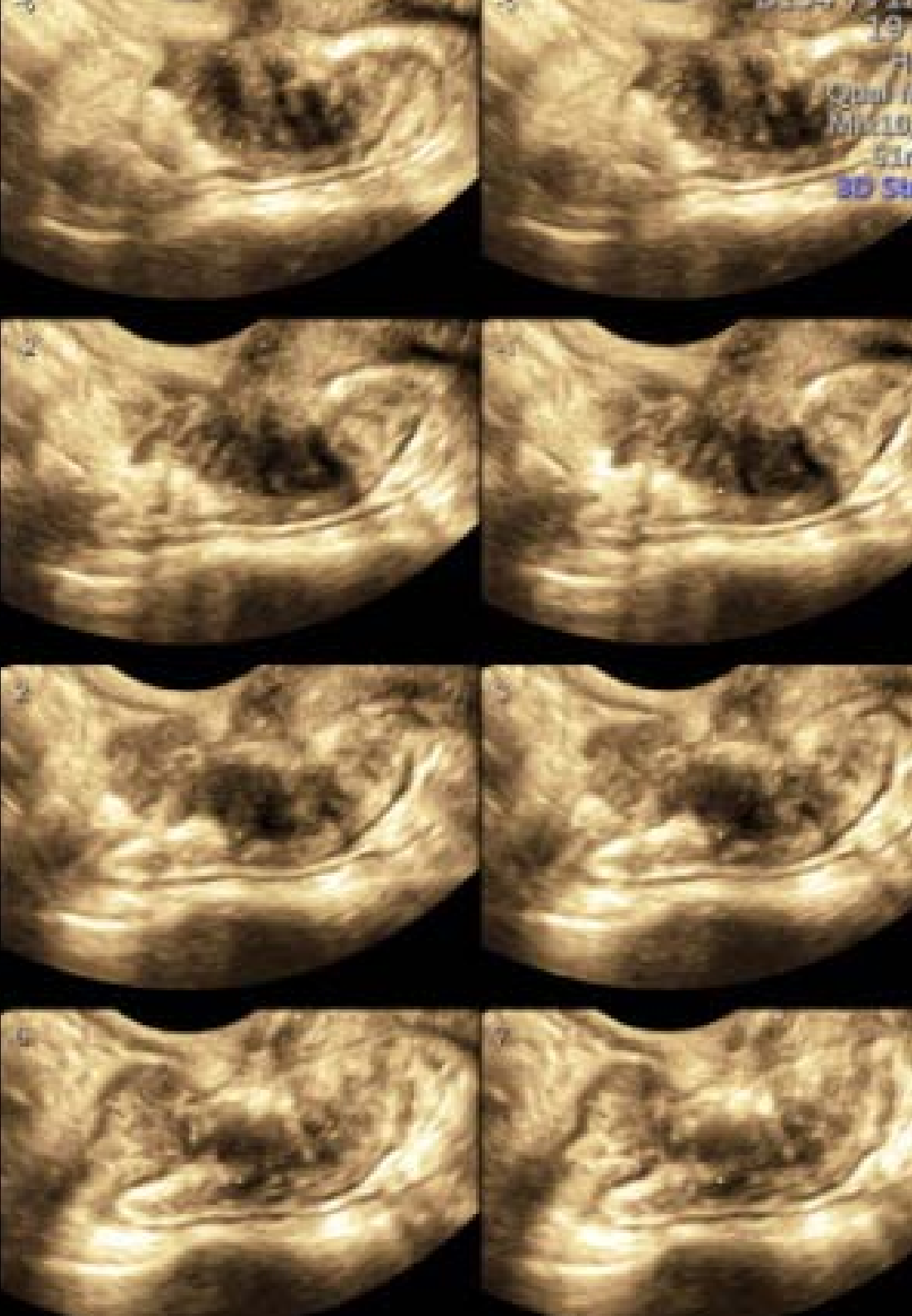
“

*This Professional Master's Degree contains the most complete and up-to-date scientific program on the market, making it your best study option"*

## Module 1. Epidemiological, Etiological and Pathophysiological Aspects of Endometriosis

- 1.1. Introduction to Endometriosis
  - 1.1.1. History of Endometriosis
  - 1.1.2. Retrograde Menstruation Theory
  - 1.1.3. Definition of Endometriosis
- 1.2. Epidemiology of Endometriosis
  - 1.2.1. Data Accuracy
  - 1.2.2. Evolution of Published Articles
  - 1.2.3. Population Studies. Prevalence and Incidence
- 1.3. Etiopathogenesis of Endometriosis
  - 1.3.1. Susceptibility of the Individual
  - 1.3.2. Theories of the Origin of Endometrial Cells
  - 1.3.3. Changes in the Environment
- 1.4. Pathophysiology of Endometriosis
  - 1.4.1. Estrogen Dominance
  - 1.4.2. Progesterone Resistance
  - 1.4.3. Localized Inflammatory Response
- 1.5. Genetic Aspects Related to Endometriosis
  - 1.5.1. Basic Concepts of Genetics
  - 1.5.2. Hereditary Genetic Aspects
  - 1.5.3. Somatic Genetic Aspects
- 1.6. Risk Factors. Aspects of Epigenetics
  - 1.6.1. Basic Concepts of Epigenetics
  - 1.6.2. MicroRNA
  - 1.6.3. Histone Modification
- 1.7. Immunological Aspects Involved in the Origin and Development of the Disease
  - 1.7.1. Immune System in the Menstrual Cycle
  - 1.7.2. Macrophages and Endometriosis
  - 1.7.3. T and B Lymphocytes in Endometriosis





- 1.8. Pathological Anatomy of Endometriosis
  - 1.8.1. Invasion of Lesions
  - 1.8.2. Types of Lesions in Peritoneal Endometriosis
- 1.9. Quality of Life of the Endometriosis Patient
  - 1.9.1. Symptoms and Patient Perceptions
- 1.10. How to Perform an Anamnesis in the Patient with Suspected Endometriosis

### Module 2. Clinical Evaluation of the Endometriosis Patient

- 2.1. Dysmenorrhea
- 2.2. Hypermenorrhea and Dysfunctional Uterine Hemorrhages
- 2.3. Chronic Pelvic Pain
- 2.4. Urinary Disorders
- 2.5. Gastrointestinal Disorders
- 2.6. Extraperitoneal Symptoms
- 2.7. Migraine
- 2.8. Fatigue
- 2.9. Psychological Disorders

### Module 3. Diagnosis of Endometriosis

- 3.1. Delayed Diagnosis of Endometriosis
- 3.2. Diagnosis Depending on the Age of the Patient
  - 3.2.1. Child Age
  - 3.2.2. Fertile Age
  - 3.2.3. Post-Menopause
- 3.3. Clinical Diagnosis
- 3.4. Basic Aspects of Two- and Three-Dimensional Ultrasonography
- 3.5. Ultrasound Diagnosis of Adnexal Endometriosis
  - 3.5.1. Hydrosalpinx/Tubal Endometriosis
  - 3.5.2. Ovarian Endometrioma
- 3.6. Ultrasound Diagnosis of Deep Endometriosis
  - 3.6.1. Endometriosis of the Recto-Vaginal Septum

- 3.7. Complementary Tests
- 3.8. Surgical Diagnosis
- 3.9. Combined Diagnostics
- 3.10. Follow-Up of the Endometriosis Patient

#### Module 4. Diagnostic Approaches to Endometriosis

- 4.1. Glycoproteins: Tumor Markers
  - 4.1.1. CA125
- 4.2. Growth Factors and Angiogenesis
  - 4.2.1. VEGF
- 4.3. Antibodies
- 4.4. Interleukins and Cytokines
- 4.5. Hormones
  - 4.5.1. Aromatase
- 4.6. Urinary Biomarkers
- 4.7. Study of "Omics" as Biomarkers
  - 4.7.1. Proteomics
  - 4.7.2. Metabolomics
- 4.8. MicroRNA
- 4.9. Long Non-Coding RNAs
- 4.10. Study of the Genome. Associated Polymorphisms

#### Module 5. Classification of Endometriosis

- 5.1. Superficial Endometriosis
- 5.2. Adnexal Endometriosis
  - 5.2.1. Tubal Endometriosis
  - 5.2.2. Ovarian Endometriosis
- 5.3. Deep Anterior Compartment Endometriosis
  - 5.3.1. Endometriosis Vesical
  - 5.3.2. Endometriosis Ureteral
- 5.4. Deep Posterior Compartment Endometriosis
  - 5.4.1. Recto-Vaginal septum
  - 5.4.2. Recto-Sigma
- 5.5. Adenomyosis

- 5.6. Extraperitoneal Endometriosis
  - 5.6.1. Catamenial Endometriosis
- 5.7. Ultrasonographic Classification Criteria for Deep Endometriosis. Revised ENZIAN Classification
- 5.8. UBESS Classification
- 5.9. Revised ASRM Company Classification
- 5.10. Endometriosis Fertility Index Rating
- 5.11. AAGL Classification

#### Module 6. Adenomyosis

- 6.1. Pathogenic Mechanisms
- 6.2. Histology of Adenomyosis
- 6.3. Ultrasound Diagnostic Criteria
- 6.4. MRI Diagnostics
- 6.5. Histological Classification
- 6.6. Proposed Ultrasound Classification
- 6.7. Proposed Classification based on MRI
- 6.8. Management of Adenomyosis
- 6.9. Invasive Treatment of Adenomyosis
  - 6.9.1. HIFU
- 6.10. Endometrial Cancer and Adenomyosis

#### Module 7. Medical Treatment of Endometriosis

- 7.1. Management of Risk Factors. Modify Lifestyle
  - 7.1.1. Tobacco Use
  - 7.1.2. Nutrition
- 7.2. Pain Management with Analgesic Guidelines
  - 7.2.1. COX1 and COX2 Inhibitors
  - 7.2.2. Opioids
  - 7.2.3. Combination
- 7.3. Combined Contraceptives
- 7.4. Progestogens
- 7.5. Dienogest
- 7.6. Danazol
- 7.7. Aromatase Inhibitors



- 7.8. GnRH Agonists
- 7.9. GnRH Antagonists
- 7.10. Treatments Under Investigation

## Module 8. Invasive Treatment of Endometriosis

- 8.1. Surgical Approaches to Superficial Endometriosis
- 8.2. Surgical Approaches to Adnexal Endometriosis
- 8.3. Surgery for Bladder and Ureteral Endometriosis
- 8.4. Endometriosis Surgery of the Rectovaginal Septum and Uterosacral Ligaments
- 8.5. Intestinal Endometriosis Surgery
- 8.6. Extraperitoneal Endometriosis Surgery
- 8.7. Radical Genital Surgery in Patients with Endometriosis
- 8.8. Endometriosis Post-Surgery Complications
- 8.9. Post-Surgery Monitoring and Treatment

## Module 9. Endometriosis and Fertility

- 9.1. Hormonal and Immunological Causes of Infertility Associated with Endometriosis
- 9.2. Ovarian Reserve and Endometriosis
- 9.3. Fertility Preservation. Oocyte Vitrification
- 9.4. Diagnosis in the Infertile Patient with Endometriosis
  - 9.4.1. Uterine Pathology
  - 9.4.2. Ovarian Pathology
  - 9.4.3. Tubal Pathology
  - 9.4.4. Associated Factors
- 9.5. Algorithm for the Management of Endometriosis Associated with Infertility
- 9.6. Artificial Insemination in the Endometriosis Patient
- 9.7. In Vitro Fertilization in the Patient with Endometriosis
  - 9.7.1. Dienogest Prior to In Vitro Fertilization
    - 9.7.2. Long Protocol vs. Antagonist Protocol
- 9.8. Elective Embryo Freezing vs. Fresh Transfer
- 9.9. Oocyte and Embryo Quality
- 9.10. Pregnancy and Endometriosis
  - 9.10.1. Endometriosis Improvement
  - 9.10.2. Complications

## Module 10. Endometriosis and Autoimmune Diseases and Other Pathological Conditions

- 10.1. Autoimmune Diseases
  - 10.1.1. Rheumatoid Arthritis
  - 10.1.2. Lupus Erythematosus
  - 10.1.3. Multiple Sclerosis
  - 10.1.4. Psoriasis
- 10.2. Cardiovascular disease
- 10.3. Thyroid Autoimmune Disease
  - 10.3.1. Hashimoto's Thyroiditis
  - 10.3.2. Graves' Disease
- 10.4. Inflammatory Bowel Diseases
  - 10.4.1. Ulcerative Colitis
  - 10.4.2. Crohn's Disease
- 10.5. Celiac Disease and its Variants
- 10.6. Irritable Bowel Syndrome
- 10.7. Food Allergies and Intolerances
  - 10.7.1. Allergic Asthma
- 10.8. Fibromyalgia
- 10.9. Cancer
  - 10.9.1. Ovarian Cancer
  - 10.9.2. Extrapelvic Cancer
- 10.10. Pathological Microbiota
- 10.11. Other Autoimmune Diseases: Multiple Sclerosis and Psoriasis



*A unique, key, and decisive learning opportunity to boost your professional development”*

06

# 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

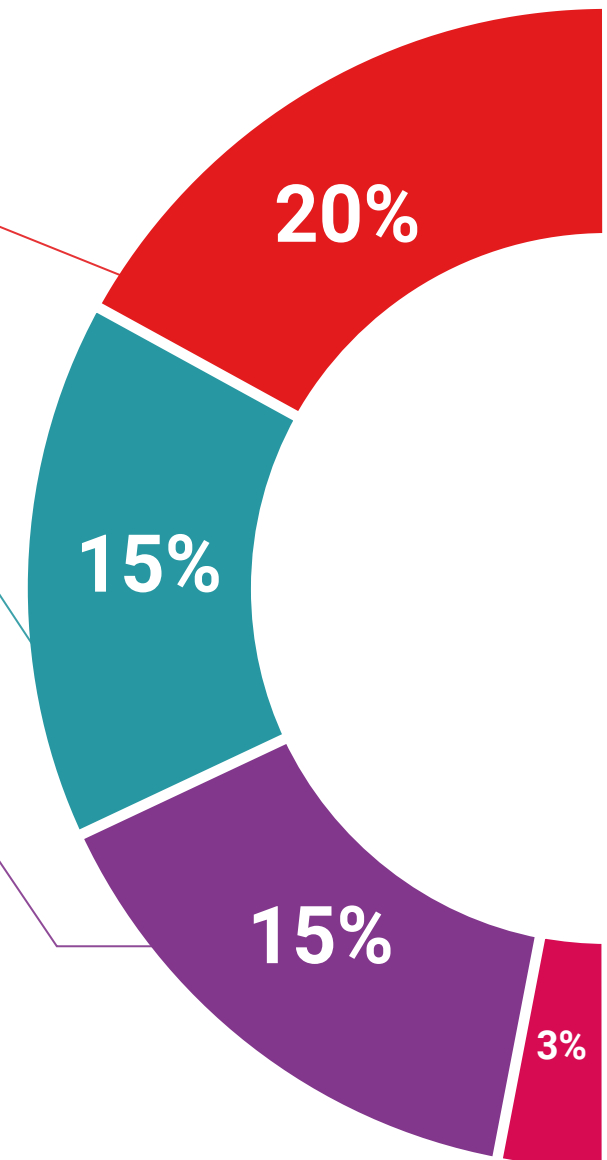
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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.



# 07 Certificate

The Professional Master's Degree in Endometriosis guarantees you, in addition to the most rigorous and up-to-date training, access to a Professional Master's Degree issued by TECH Global University.



“

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

This program will allow you to obtain your **Professional Master's Degree diploma in Endometriosis** 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.

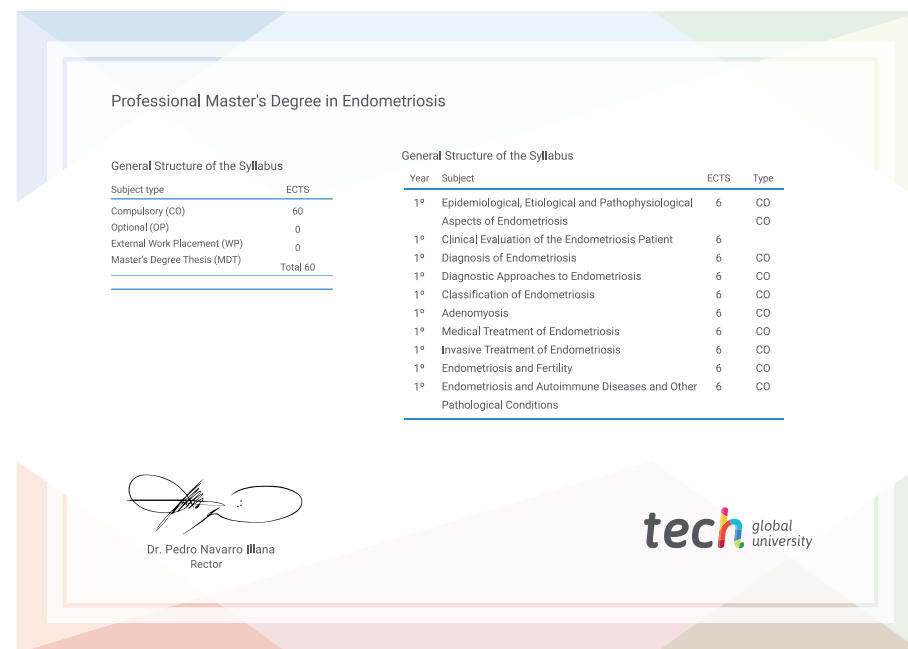
This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Professional Master's Degree in Endometriosis**

Modality: **online**

Duration: **12 months**

Accreditation: **60 ECTS**



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





## Professional Master's Degree Endometriosis

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Global University
- » Credits: 60 ECTS
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

# Professional Master's Degree

## Endometriosis



USA  
n Rend  
n27/Qual ma  
B180°/V12  
Mix66/  
SRI 3D  
3D Stat