



## Hybrid Master's Degree

## Endometriosis

Modality: Hybrid (Online + Clinical Internship)

Duration: 12 months

Certificate: TECH Global University

60 + 5 créditos ECTS

Website: www.techtitute.com/us/medicine/hybrid-master-degree/hybrid-master-degree-endometriosis

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## tech 06 | Introduction

Women suffering from Endometriosis are more likely to suffer from infertility problems (30%) and autoimmune diseases (12%), which is an added handicap to this chronic and painful pathology. However, the progress achieved thanks to research studies has opened the door to the introduction of new, more effective treatments, giving hope for a reduction in surgical interventions.

Medical professionals, however, continue to face the great challenge of achieving a correct diagnosis and success in women who have difficulty conceiving. Faced with this situation, TECH has created this Hybrid Master's Degree, which offers specialists the opportunity to update their knowledge with the help of an excellent team of experts in Gynecology, Obstetrics and Human Reproduction.

All this, in addition, with an advanced syllabus 100% online and with multimedia content that will make the update much more enjoyable, compatible with the usual clinical internship and according to the needs of physicians. In addition, this program provides a unique experience by offering a 3-week internship in a hospital center that is at the forefront in the approach and management of patients suffering from Endometriosis.

In this way, the specialist will be together with the best in this field, who will show them the most innovative procedures in patients suffering from this disease in infantile, fertile or postmenopausal age. In addition, they will learn about the most effective ultrasound techniques, the most recent complementary tests, as well as the advances in the management of patients with other pathologies such as Lupus, Multiple Sclerosis, Cancer or Fibromyalgia.

Therefore, this institution offers physicians an excellent opportunity to keep up-to-date with the latest advances in Endometriosis through a degree designed by and for the most demanding professionals in their specialty.

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

- More than 100 clinical cases presented by professionals 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
- Patient assessment and monitoring
- Comprehensive systematized action plans for the main pathologies related to Endometriosis
- Presentation of practical workshops on procedures, diagnosis, and treatment techniques in patients with Endometriosis
- An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course
- Practical clinical guides on approaching different pathologies
- With a special emphasis on evidence-based medicine and research methodologies in Endometriosis
- All this will be complemented by theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Content that is accessible from any fixed or portable device with an Internet connection
- Furthermore, they will be able to carry out a clinical internship in one of the best hospitals



This degree gives you the opportunity to be up-to-date in the progress achieved in the in-vitro fertilization of patients with Endometriosis"



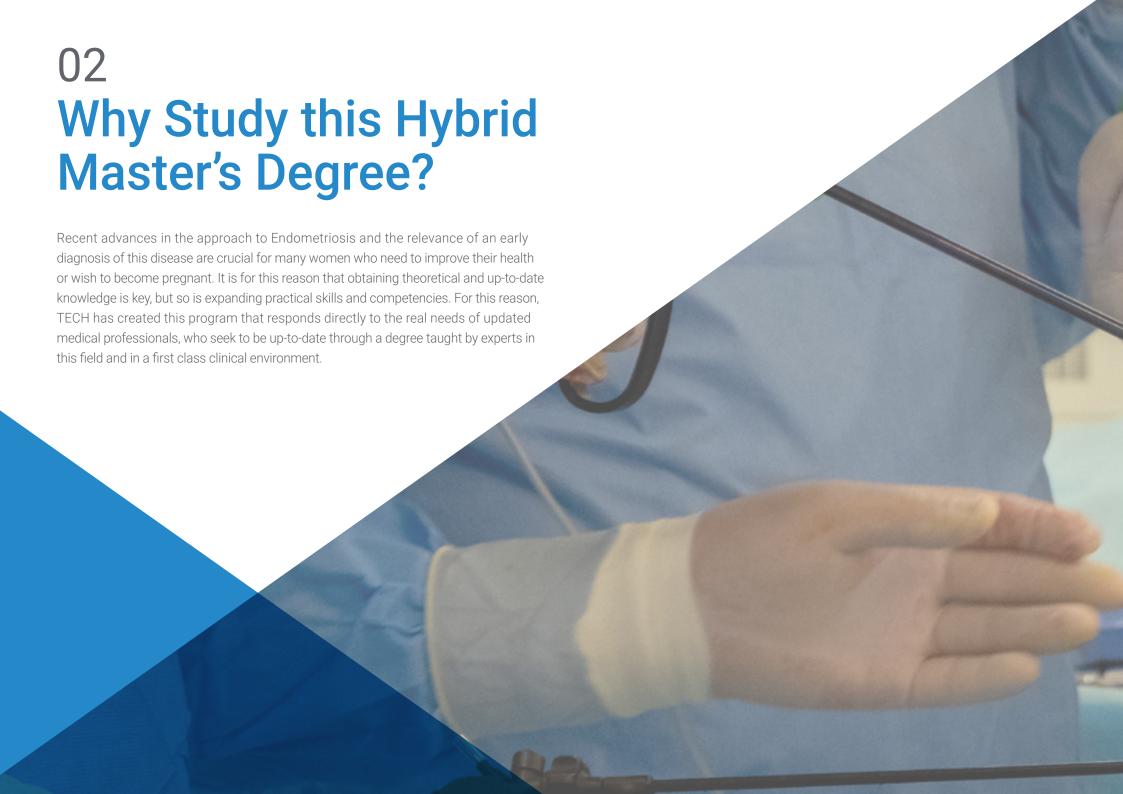
A program in which you will have an intensive 3-week internship in a relevant hospital center with professionals specialized in Endometriosis"

This Master's program, which has a professionalizing nature and a hybrid learning modality, is aimed at updating medical professionals who perform their functions in hospitals and fertilization clinics, and who require a high level of qualification. The contents are based on the latest scientific evidence, and oriented in a educational way to integrate theoretical knowledge in the medical practice, and the theoretical-practical elements will facilitate the updating of knowledge and allow decision-making in patient management.

The multimedia content developed with the latest educational technology will provide the medical professional with situated and contextual learning, i.e., a simulated environment that will provide an immersive education program 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 during the course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.

This Hybrid Master's Degree has a 100% online theoretical content that you can access comfortably from any device with Internet connection.







## tech 10 | Why Study this Hybrid Master's Degree?

#### 1. Updating from the latest technology available

Surgical interventions and diagnosis by means of ultrasound and complementary tests have advanced in patients with Endometriosis thanks to the improvement of ultrasound and interventional devices. For this reason, and with the aim of bringing specialists closer to these advances, TECH presents this degree where the professional will enter into an intensive theoretical framework and a practical internship, in which they will be surrounded by the best experts in Endometriosis.

#### 2. Gaining In-Depth Knowledge from the Experience of Top Specialists

From the very beginning, the medical professional who takes this Hybrid Master's Degree will have at their disposal a teaching staff with an excellent professional background. In addition, the specialists who will guide them during the practical stay in a hospital center of relevance in the approach of patients suffering from Endometriosis will be of the same level. All of this is a guarantee for the physician who wishes to update their knowledge with the best.

#### 3. Entering First-Class Clinical Environments

TECH carries out a rigorous selection process of both the medical professionals who teach the degree, as well as the hospitals where the clinical internship will take place. Thanks to this, the specialist will have guaranteed access to the most current knowledge, under the highest scientific rigor and with experts with extensive experience in the diagnosis and treatment of patients with Endometriosis.





## Why Study this Hybrid Master's Degree? | 11 tech

### 4. Combining the Best Theory with State-of-the-Art Practice

Nowadays it is necessary for professionals to have the latest information on Endometriosis, but at the same time with the real practice needed to improve their skills in this field. That is why TECH perfectly combines in this degree, a 100% online theoretical framework with a 100% on-site internship in a first-class healthcare environment, which will allow them to be up-to-date with the new procedures used to deal with Endometriosis and its associated problems.

#### 5. Expanding the Boundaries of Knowledge

TECH with this program offers the possibility not only to carry out an internship in centers of national importance, but also international. In this way, the specialist will be able to apply in their daily practice the progress achieved in clinical spaces of the highest level, together with professionals who master the diagnosis and treatment of Endometriosis, applying for them the latest advances in this field.







## tech 14 | Objectives



## **General Objective**

• The general objective of the Hybrid Master's Degree in Endometriosis is to ensure that the professional get up-to-date on diagnostic and therapeutic procedures through a syllabus that is compatible with their usual practice and perfected through a hospital stay designed with the utmost clinical rigor. Therefore, in this degree, the professional will increase their competences and skills in the application of treatments for patients with this disease and other associated pathologies, in addition to including the most recent treatments to reduce infertility problems



This program will provide you with the latest discoveries about the patient's microbiota, the autoimmune state and how it affects Endometriosis"



## **Specific Objectives**

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

- Accurately know the definition of the disease and the difficulty in reaching this diagnosis through history
- Know 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 knowledge of the pathogenesis of Endometriosis and the knowledge of the physiopathology, 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 quality of life with the most recent population-based studies providing a closer view of the patients
- 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 symptomatology that occurs along with the disease and the independence of this with 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, the concomitant pathologies with Endometriosis and adequately evaluate their diagnosis
- Evaluate symptoms coincident with menstruation, addressing the possible extraperitoneal involvement of the disease and know the complementary tests and differential diagnosis
- Acquire in-depth knowledge of the diagnosis of migraine 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 by means of a rigorous anamnesis and know the concept of clinical diagnosis and the opinion of the different scientific societies
- Delve into the 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 and know 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 with what frequency, as well as which complementary tests are necessary in each case

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### 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, understanding 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 IncRNA studies and their association in 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 in depth 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 to 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 a good control of Adenomyosis symptoms, know which
  medical treatments are most effective and to learn about radiological techniques as a noninvasive 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 the skills of 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, know which are the most used and effective combinations depending on the route of administration
- Know what gestagens are and their usefulness in the treatment of Endometriosis, to know their efficacy depending on the symptomatology, the type of Endometriosis and what are their side effects
- 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

## tech 18 | Objectives

- Know all the GnRH agonist drugs with their route of administration and efficacy in Endometriosis and understand when it is indicated to treat with this treatment and the undesirable effects it causes
- Know the usefulness of GnRH antagonists in the treatment of Endometriosis, which are 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 targets with the scientific advances in each one of them

#### Module 8. Invasive Treatment of Endometriosis

- Gain an 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 obtain a 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, risks and complications and which surgical techniques are the most appropriate in each case
- Acquire the knowledge for a correct surgery in deep bowel endometriosis, to know the
  preparation of patients and the complementary tests required prior to surgery and know
  how to deal with complications and what they are in advance
- 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 physiopathological 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, to develop 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 the patient 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 indication 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
- Learn about the close relationship of Endometriosis with the long-term onset of cardiovascular disease and the strategies for prevention and early diagnosis
- 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, knowing in depth the symptomatology that can mask Endometriosis and understand each of the inflammatory bowel diseases from the clinical and pathogenic point of view
- Know in depth the celiac disease and its variants 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 with 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





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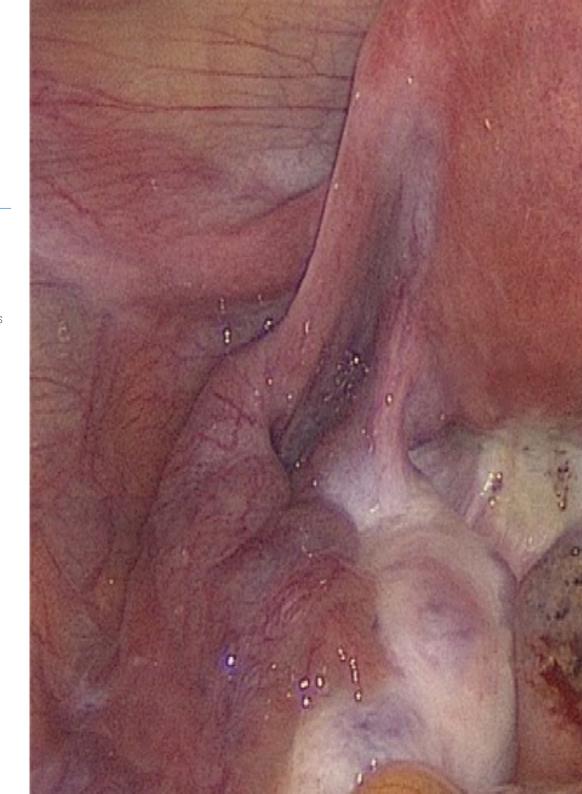


## **General Skills**

- 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



Gain current insight into the critical assessment of masking Endometriosis in patients diagnosed with irritable bowel syndrome"







## **Specific Skills**

- 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





## Management



## Dr. Moliner Renau, Belén

- Gynecologist Specialist in Reproductive Medicine at the Bernabeu Institute
- Gynecologist Specialist in Reproductive Medicine at the University Hospital of the Canary Islands
- Doctor of Medicine from the University of Valencia
- Master's Degree in Reproductive Medicine from Rey Juan Carlos University
- Master's Degree in Research Methodology from the Autonomous University of Barcelona.
- Expert in Medical Genetics, University of Valencia

## **Professors**

#### Dr. Rodriguez Arnedo, Adoración

- Researcher of R&D projects
- Collaborator at the Bernabeu Institute in the Embryology and Molecular Biology Laboratories
- Degree in Biology from the University of Alicante
- Specialized in Biotechnology from the University of Alicante
- Doctor from the University of Alicante
- Member of National and International Scientific Societies of Assisted Reproduction (ASEBIR and ESHRE) and Molecular Biology (SEBBM)

### Dr. Gomis Gozalbo, Cristina

- Head of the Prenatal Diagnostic Service at IMED Valencia
- Assistant Physician of the Gynecology and Obstetrics Service at the Clinical University Hospital of Valencia
- Gynecologist at Clínica Millet
- Degree in Medicine
- Doctor of Medicine from the University of Valencia

#### Dr. Galiana Ivars, María

- Medical specialist in Anesthesiology and Resuscitation
- Medical Specialist at the University Hospital of Alicante
- Anesthesiology and Resuscitation Physician for hospitals in Castilla y León.
- Member: Spanish Society of Healthcare Quality

### Dr. Romera Agulló, Natalia

- General Health Psychologist, Specialist in Assisted Reproduction and Gamete Donation
- Coordinator of the Ovodonation Department at the Bernabeu Institute
- Psychologist at the Bernabeu Institute
- Psychologist at Forsel Grupo Norte
- Psychologist at Inspa Basal HR.
- Psychologist at Prevescon
- Degree in Psychology from the University of Miguel Hernández de Elche
- Master's Degree in General Health Psychology from the Distance University of Madrid

### Mr. Guerrero Villena, Jaime

- Director of the Oocyte Donation and Cryobiology Program at the Bernabeu Institute
- Coordinator of the In Vitro Fertilization Laboratory at the Bernabeu Institute
- Master's Degree in Human Reproduction from the Complutense University of Madrid
- Master's Degree in Biotechnology and Biomedicine from the University of Alicante
- Degree in Biology from the University of Valencia
- Member of: European Society of Human Reproduction and Embryology, Spanish Association of Reproductive Biology

#### Dr. Ruiz Piña, M. Carmen

- \* Specialist of Gynecology and Obstetrics in the Assisted Reproduction Unit
- at La Fe Polytechnic and University Hospital
- Gynecology and Obstetrics Specialist in the Obstetrics, High Risk and Ultrasound Unit at the La Fe Polytechnic and University Hospital
- \* Specialist in Gynecology and Obstetrics at the Clinical University Hospital of Valencia
- Specialist in Gynecology and Obstetrics at the Ginesalud Clinic
- Doctor of Medicine from the University of Valencia
- Degree in Medicine and Surgery from the University of Alicante, with specialization in
- Obstetrics and Gynecology at La Fe Polytechnic and University Hospital
   Postgraduate Certificate in Gynecological Endoscopy by the University of Alcalá and the
   University Clermont Auvergne in France
- Level IV Expert in Gynecologic Obstetric Ultrasound by the Spanish Society of Gynecology and Obstetrics (SEGO)

#### Dr. Sellers López, Francisco

- Director of the Department of Obstetrics and directly responsible for the Ultrasound and Prenatal Diagnosis Section, Bernabeu Institute
- Medical Director at VITA IMED Hospitals
- Independent Gynecologist at the Dr. Sellers Clinic
- Medical Specialist in Obstetrics and Gynecology at the La Fe University Hospital
- Assistant Physician at the Comarcal Marina Alta Hospital in Denia and at the General University Hospital in Elda
- Doctor of Medicine at the University Miguel Hernández of Elche.
- Degree in Medicine and Surgery from the University of Valencia
- Member: SEGO, SEF, SOGCV

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#### Dr. García Pastor, Irene

- Medical Specialist in Radiodiagnosis and head of the Breast Radiology Unit, Marina Baixa Hospital
- Member of REAM Spanish Society of Medical Radiology
- Scientific Research

#### Dr. Navarro Tellez, Pino

- Director of the Fertility and Pregnancy Endocrinology Unit at the Bernabeu Institute
- FEA of the Endocrinology and Nutrition Section at the Hospital Virgen de los Lirios Alcoy (Spain)
- \* Doctor of Medicine and Surgery, Miguel Hernández University of Elche
- Degree in Medicine and Surgery from the University of Alicante
- Master's Degree in Clinical Management of Care Units and Endocrinology from Menéndez Pelayo International University
- Institutional Recognition of the Ministry of Universal Health and Public Health of the Valencian Community for her contribution to Health Research with a Gender Perspective
- FUCAMDI Award from the Castilla-La Mancha Diabetes Foundation for the best clinical research work

### Dr. Llaneza Gonzáles, Ángela

- Medical Specialist in Obstetrics and Gynecology at the Bernabeu Institute
- Degree in Medicine from the University of Oviedo
- Master's Degree in Human Reproduction from the Spanish Fertility Society and Complutense University of Madrid
- Specialist in Gynecological and Obstetric Ultrasound by the Complutense University of Madrid
- Member: Spanish Fertility Society

#### Dr. Fabregat Reolid, Ana

- Pharmaceutical Analyst at the Bernabeu Institute
- Doctor of Pharmacy
- \* Specialist in Human Reproductive Biology at the Miguel Hernández University
- Master's Degree Professor at the University of Alicante
- Degree in Pharmacy from the University of Valencia

#### Dr. Lizán Tudela, César

- Specialist in Gynecology and Obstetrics at the Hospital Clínico Universitario de Valencia.
- Specialist in Gynecology and Obstetrics at the Clinical University Hospital of Valencia
- Associate Professor University of Valencia
- Doctor of Medicine with Excellent Cum Laude from the University of Valencia
- Master's Degree in Human Reproduction
- Master's Degree in Gynecological Endoscopic Surgery

### Dr. Ortiz Salcedo, Jose Antonio

- Biochemist and Molecular Biologist at the Instituto Bernabéu Biotech
- Degree from the University of Barcelona

## Dr. Fuentes Rozalén, Ana

- Specialist in Gynecology and Obstetrics
- Gynecologist at the Bernabeu Institute
- Specialist at the University Hospital Complex of Albacete
- Doctor specialized in Obstetrics and Gynecology
- Master's Degree in Advanced Gynecological Endoscopic Surgery at the University of Valencia Member: Spanish Society of Gynecology and Obstetrics

## Dr. Llacer Aparicio, Joaquín

- Medical Director of Ginefiv GeneraLife Clinics
- Co-Medical Director of the Department of Reproductive Medicine at the Bernabeu Institute
- Gynecologist Specialist in Assisted Reproduction
- Doctor of Medicine at the University Miguel Hernández of Elche
- Degree in Medicine and Surgery from the University of Valencia
- Doctor of Medicine at the University Miguel Hernández of Elche
- Research Awards from the American Society for Reproductive Medicine, the British Fertility Society, the Spanish Fertility Society and the Spanish Association for the Study of Reproductive Biology
- Member: Committee of National Representatives of the European Society of Human Reproduction and Embryology, Spanish Fertility Society

#### Dr. Marco Alacid, Cristian

- \* Specialist in Endocrinology at the Virgen de los Lirios Hospital
- Professor of Endocrinology
- Doctor from the University of Valencia
- \* Degree in Medicine from the Miguel Hernández University of Elche
- Master's Degree in Research Methodology in Health Sciences from the Autonomous University of Barcelona
- Postgraduate Certificate in Treatment of Diabetes Mellitus type 2 by the Autonomous University of Barcelona

#### Dr. Lledo Bosch, Belén

- \* Scientific Director of IBBiotech. Doctorate in Biology. Medical Genetics Specialist
- Scientific Director of IBBiotech
- Medical Genetics Specialist
- Lecturer at the University of Alicante
- Researcher of the SEF Working Group on Genetics
- PhD in Biology from the University of Alicante
- Degree in Biology from the University of Alicante
- Master's Degree in Biostatistics and Bioinformatics by the Universitat Oberta de Catalunya
- Accredited Specialist in Human Genetics granted by the Spanish Association of Human Genetics (AEGH)
- Reviewer of scientific journals such as Human Reproduction, Fertility and Fertility and Sterility, Reproductive Biomedicine Online, Journal of Assisted reproduction and Genetics and Reproductive Medicine and Clinical Embryology
- Member: Spanish Fertility Society, Spanish Association of Human Genetics, European Society of Fertility (ESHRE), Association for the Study of the Biology of Reproduction

#### Dr. Morales Sabater, Ruth

- Pharmacist in the Andrology and Genetics Laboratory of the Bernabeu Institute
- Lecturer in postgraduate studies related to Reproductive Medicine
- PhD in Biology
- Degree in Pharmacy from the University of Valencia

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#### Dr. Palacios Marqués, Ana

- Director of the Obstetrics Units of the Bernabeu Institute Group
- Section Chief of the Obstetrics and Gynecology Service at the General University Hospital. Alicante (Spain)
- Professor of the Master's Degree in Reproductive Medicine at the University of Alicante
- Degree in Medicine and Surgery from the Faculty of Medicine, University of Valencia
- Medical Specialist in Obstetrics and Gynecology
- Postgraduate Certificate in Obstetric and Gynecological Ultrasound Level IV awarded by the Ultrasound Section of the Spanish Society of Obstetrics and Gynecology
- Postgraduate Certificate in Fetal Medicine by the Spanish Section of Fetal Medicine Foundation
- Member: Spanish Society of Gynecology and Obstetrics (SEGO), Society of Gynecology and Obstetrics of the Valencian Community (SOGCV)

#### Dr. Luque Martínez, Lydia

- \* Gynecologist and Medical Director of the Instituto Bernabéu Albacete
- FEA of Obstetrics and Gynecology at the University Hospital of Alicante
- FEA of Obstetrics and Gynecology at the Marina Baixa Hospital
- Professor of the Master's Degree in Reproductive Medicine at the University of Alicante
- Certificate of Obstetric-Gynecological Ultrasound Training Level III by the Complutense University of Madrid and University Hospital of Getafe
- European Postgraduate Certificate in Operative Endoscopy in Gynecology by the University of Alcalá and Clermont Auvergne University
- Postgraduate Certificate in Fetal Medicine by the Spanish Section of the Fetal Medicine Foundation
- Member: Spanish Society of Gynecology and Obstetrics, Spanish Fertility Society, European Society of Human Reproduction and Embryology

### Ms. López Lozano, Alicia

- Dietitian Nutritionist specialized in Endometriosis and Reproductive Disorders
- Dietitian and Nutritionist at the AISEM Center
- Postgraduate Certificate in Human Nutrition and Dietetics from the University of Alicante
- Degree in Human Nutrition and Dietetics from the University of Alicante
- Expert in the Approach to Overweight and Obesity by the ICNS Institute for Advanced Training in Nutrition and Health
- Update on the integral management of the patient with diabetes mellitus by Lilly in collaboration with the Continuing Education Commission of the Spanish National Health System
- Practical Theoretical Course on Obesity Management by SEEDO
   Practical Workshops in Diabetology by the Valencian Society of Endocrinology, Diabetes
   and Nutrition
- Intelligent Management of Diabetes in the Digital Era by Ascensia Diabetes Care
- \* Breastfeeding Counselor Diploma by Edulacta
- Master's Degree in Female Hormonal Medicine and Health by UCAM and ICNS.
- Member: College of Nutritionists of the Valencian Community, Spanish Academy of Nutrition

## Dr. Muñoz Gil, Sonia

- Physician in the Rheumatology Service at the University Hospital Doctor Peset
- \* Attending Physician at the Hospital Clínic Universitari de Barcelona
- \* Specialist in Rheumatology at the Hospital de Manises. Valencia (Spain)
- Degree in Medicine

#### Dr. Albero Amoros, Sonia

- Doctor specialized in Obstetrics and Gynecology. Accuna Clinic
- Doctor specialized in Obstetrics and Gynecology. Vinalopó Health Department.

- Resident Physician at the Hospital San Juan de Alicante
- Degree in Medicine from the University of Miguel Hernández de Elche

#### Dr. Herencia Rivero, Alicia

- Gynecologist Specialist in Reproductive Medicine
- Gynecologist at the Bernabeu Institute of Reproductive Medicine
- Specialist Physician at the San Carlos Clinical Hospital
- Master's Degree in Human Reproduction from the Complutense University of Madrid.
- Member: Spanish Fertility Society

#### Dr. Melé Olivé, Laura

- FEA of Obstetrics and Gynecology at the Hospital Arnau de Vilanova
- Specialist in Gynecology and Obstetrics in Avantmèdic
- Member of the Lleida Official College of Physicians
- Resident Tutor at the Hospital Arnau de Vilanova
- Master's Degree in Human Reproduction from Rey Juan Carlos University
- Member: Spanish Society of Gynecology and Obstetrics

### Dr. Martín-Ondarza González, Carmen

- Specialist in Gynecology and Obstetrics
- Head of the Endoscopy Unit at the Bernabeu Institute
- FEA in Obstetrics and Gynecology of the Health Service of the Community of Madrid
- Assistant Physician in Gynecology and Obstetrics at the General University Hospital Santa María del Rosell
- Specialist in Gynecology and Obstetrics at the Bernabeu Institute

- Author of publications for chapters in books and national and international journals
- Lecturer in postgraduate studies on fertility
- Master's Degree in Gynecologic Endoscopy at the Autonomous University of Barcelona

#### Dr. Esparza Soria, Alicia

- Specialist in Gynecology and Obstetrics
- Medical Specialist in Obstetrics and Gynecology at the Hospital Vithas Medimar International
- Medical Specialist in Obstetrics and Gynecology at the General Hospital of Elda
- Resident Medical Intern in Obstetrics and Gynecology at Vall D'Hebrón Hospital in Barcelona
- Author of articles in scientific journals
- National and International Speaker
- Degree in Medicine. University of Valencia
- Level III in Obstetric-Gynecologic Ultrasound Spanish Society of Gynecology and Obstetrics - Obstetric-Gynecological Ultrasound Section
- Certificate in Colposcopy Spanish Association of Cervical Pathology and Colposcopy
- Master's Degree in Clinical and Surgical Research Miguel Hernández University of Elche
- Member of the Spanish Society of Gynecology and Obstetrics

## Dr. Romero Saavedra, Ruth

- Specialist in Gynecology and Obstetrics
- Gynecologist at the Bernabeu Institute (Madrid)
- \* Specialist in Gynecology and Obstetrics at the University Hospital of Móstoles (Madrid)
- Specialist in Gynecology and Obstetrics at Hospital Quirónsalud Sur

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- Degree in Medicine and Surgery from the Autonomous University of Madrid.
- \* Specialization in Gynecology and Obstetrics at the University Hospital of Móstoles
- Member: Spanish Society of Gynecology and Obstetrics, Spanish Association for the Study of Menopause

#### Dr. Bernabeu García, Andrea

- Co- Medical Director at the Bernabeu Institute
- Coordinator of the Genetic and Reproductive Counseling Unit at the Bernabeu Institute
- \* Doctor of Medicine at the University Miguel Hernández of Elche
- \* Master's Degree in Reproductive Medicine from the University of Alicante
- Member of: European Board and College of Obstetrics and Gynecology

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

- Medical Coordinator at Bernabeu Institute, Madrid
- Reproductive Medicine Specialist at the Assisted Reproduction Unit of Sanitas Hospitals
- \* Author and co-author of scientific publications in her field of specialty
- Principal Researcher and sub-researcher in clinical trials
- University Lecturer
- Degree in Medicine. Autonomous University of Madrid
- \* Specialist in obstetrics and gynecology La Paz University Hospital from Madrid
- Master's Degree in Human Reproduction. Spanish Fertility Society and Complutense University of Madrid
- Member: Spanish Society of Fertility, Spanish Society of Gynecology and Obstetrics

### Dr. Ten Morro, Jorge

• Embryologist Expert in the In Vitro Reproduction field

- Director of the Embryology Unit of the Bernabeu Institute of Reproductive Medicine
- Former Head of the Molecular Biology Unit of the Bernabeu Institute of Reproductive Medicine
- Member: Department of Biotechnology, University of Alicante, PhD in Biological Sciences, University of Valencia.

#### Dr. Gavilán Cabello, Cristina

- \* Specialist in Reproductive Medicine at the Bernabeu Institute. Palma de Mallorca
- \* Specialist in Gynecology and Obstetrics at the University Hospital 12 de Octubre
- Stays at the Mayo Clinic in Rochester in the USA, the Prince of Wales Hospital in Sydney, and Fertility Plus Auckland in New Zealand
- Degree in Medicine and Surgery from the Autonomous University of Madrid.
- Level III Certificate in Obstetric and Gynecologic Ultrasound by the University Hospital 12 de Octubre
- Member: Spanish Fertility Society, European Society of Human Reproduction and Embryology, Societat Balear de Ginecologia i Obstetricia

#### Dr. De La Torre Pérez, Esperanza

- \* Gynecologist Specialist in Reproductive Medicine
- \* Specialist in Obstetrics and Gynecology. Bernabeu Institute Madrid
- Doctor specialized in Obstetrics and Gynecology. San Francisco de Asís Hospital
- MIR in Gynecology and Obstetrics. Jiménez Díaz Foundation Hospital
- Degree in Medicine. Complutense University of Madrid
- Master's Degree in Human Reproduction. Rey Juan Carlos University

#### Dr. Aranda López, Ignacio

- Physician in the Pathological Anatomy Service at Vithas Hospital (Alicante)
- Medical Specialist in Pathological Anatomy at the Hospital Universitario Puerta de Hierro Majadahonda (Madrid)

- Head of Service at the General University Hospital of Alicante Consultant Pathologist of the Oncological Plan of the Valencian Community
- Member: Spanish International Academic Society of Pathological Anatomy, Spanish Society of Cytology, United States and Canadian Academy of Pathology, Doctor by the Autonomous University of Madrid

#### Dr. Cirillo, Paolo

- Director of the Hysteroscopy Unit at the Instituto Bernabeu
- Gynecologist at the Bernabeu Institute
- Medical Director at the Bernabeu Institute Venice (Italy)
- Director at Villa del Sol (Naples)
- Gynecologist at the Assisted Fertilization Center Promea Turin (Italy)
- Gynecologist at Prof IVF Centers (Italy)
- Gynecologist at the Ambulatory Surgery Center SRL (Florence, Italy)
- Doctor in Reproduction, Growth and Human Development at the University of Naples Federico II
- Degree in Medicine and Surgery at the University of Naples Federico II
- \* Specialist in Obstetrics and Gynecology at the University of Naples Federico II
- Master's Degree in Hysteroscopy Vaginoscopy (London)
- Master's Degree in Obstetrics from the University of Naples Federico II
- Master's Degree II Level in Legal Sciences and Reproductive Biology by the University of Naples Federico II

#### Dr. Castillo Farfán, Juan Carlos

- Obstetrician and Gynecologist Specialist in Reproductive Medicine
- \* Specialist in Gynecology and Obstetrics at the Hospital Clínico Universitario de Valencia.
- Gynecologist at the Bernabeu Institute

- \* Associate Editor of the European Society of Human Reproduction and Embryology (ESHRE)
- Member of the Editorial Committee of the journal Human Reproduction
- PhD in Medicine and Surgery from the University of Valencia
- Degree in Medicine and Surgery
- Specialist in Gynecology and Obstetrics
- Master's Degree in Human Reproduction
- Member of the Bernabeu Institute Group, European Society of Human Reproduction and Embryology (ESHRE)

#### Dr. Bernabeu Pérez, Rafael

- Medical Director at the Bernabeu Institute
- Founder and President of the National Association of Reproductive Medicine Centers
- Author of multiple articles in prestigious national and international journals
- Speaker at more than 400 congresses and conferences around the world
- \* Doctor of Medicine at the University Miguel Hernández of Elche.
- \* Degree in Medicine and Surgery from the University of Valencia
- Postgraduate Studies in Assisted Reproduction Techniques New York
- Member: Spanish Fertility Society, American Society for Reproductive Medicine, Spanish Society of Gynecology and Obstetrics, Spanish Society of Andrology, British Fertility Society, Editorial Committee of the Iberoamerican Journal of Fertility, Editorial Committee of the Spanish Journal of Obstetrics and Gynecology.

### Dr. Martín Díaz, Rodolfo

- Head of the Obstetrics and Gynecology Unit at Hospital Quirónsalud Torrevieja
- Master's Degree in Gynecologic Oncology and Breast Pathology by the University of Barcelona

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- European Postgraduate Certificate in Operative Endoscopy in Gynecology, Clermont Auvergne University
- Degree in Medicine from the University Catholic of Córdoba

## Dr. Abad De Velasco, Lorenzo

- \* Specialist in Obstetrics and Gynecology in the Reproductive Medicine Unit at the HGU
- \* Specialist in Obstetrics and Gynecology in the Reproductive Medicine Unit at the General University Hospital of Valencia
- Expert in Assisted Reproduction, Clínica Jorge Juan de Valencia







TECH has brought together leading experts in the field of Gynecology to give you the most current view on the approach to Endometriosis"





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# **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
- 5.9. 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

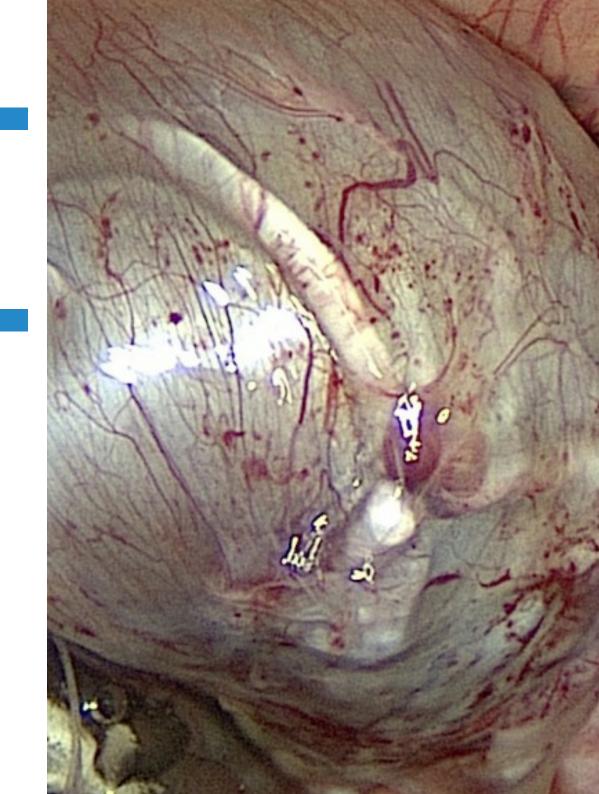
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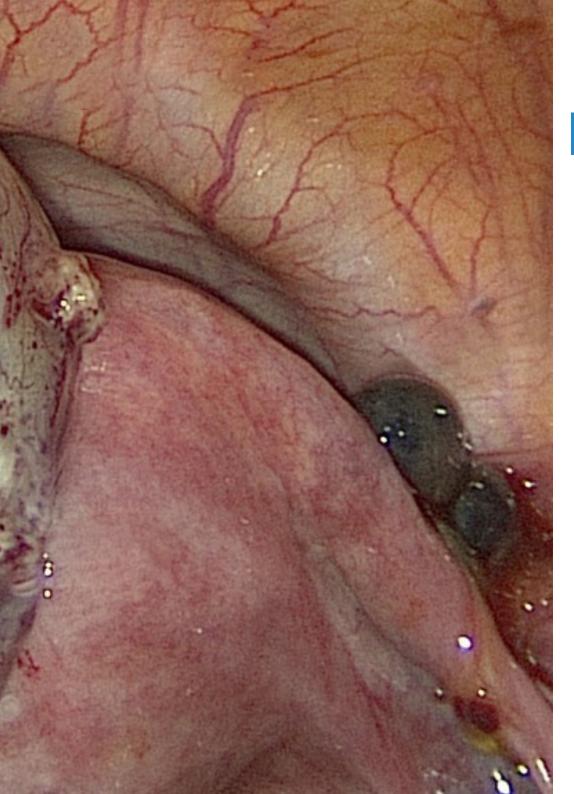
# Module 8. Invasive Treatment of Endometriosis

- 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 Follow-up 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





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# **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





# tech 44 | Clinical Internship

The Internship Program in Endometriosis consists of a practical clinical internship lasting 3 weeks, from Monday to Friday, with 8 consecutive hours of practical training with an excellent team of professionals specialized in Gynecology and Obstetrics. This internship will allow the physician to be with patients suffering from Endometriosis, and where they will be able to check the most advanced diagnostic and therapeutic procedures applied in this field, by experts with great experience in this field.

In this 100% practical stay, the activities that the professional will carry out will be aimed at developing and mastering their skills for the provision of first-level healthcare, applying the most innovative techniques. All this, in a healthcare environment that requires a high-level qualification and in which they will not be alone, since they will be accompanied by an expert in this field, as well as the tutoring of a teacher assigned by TECH.

This institution undoubtedly offers an excellent opportunity to expand healthcare skills in this field, in an innovative hospital environment, applying the most sophisticated techniques and always surrounded by the best specialists. Therefore, TECH offers a new way of understanding and integrating health processes, turning a hospital into a first-class teaching scenario for the improvement and updating of knowledge.

The internship will be carried out with the active participation of the student performing the activities and procedures related to each area of competence (learning to learn and learning to do), with the support and guidance of the teachers and other classmates to facilitate teamwork and multidisciplinary integration as transversal competencies for the medical practice (learning to be and learning to relate to others).

The procedures described below will form the basis of the practical part of the training, and their implementation is subject to both the suitability of the patients and the availability of the center and its workload, with the proposed activities being as follows:





# Clinical Internship | 45 tech

Module	Practical Activity
Clinical Assessment Techniques for Patients with Endometriosis	Perform anamnesis in the patient with possible Endometriosis
	Assess the epigenetic risk factors of a patient with Endometriosis
	Determine the diagnosis of Endometriosis based on the patient's symptoms and perception
	Perform complementary tests to rule out Endometriosis in patients with gastrointestinal disorders
Endometriosis Diagnostic Techniques	Perform ultrasound testing of adnexal endometriosis
	Collaborate in the diagnosis of Endometriosis of the recto-vaginal septum
	Assist in the combined diagnosis
	Assist in the surgical diagnosis of Endometriosis
Application of Surgical Treatment for Endometriosis	Assess the performance of surgical techniques for superficial Endometriosis
	Collaborate in the performance of surgical techniques applied in extraperitoneal Endometriosis
	Carry out post-surgical follow-up and treatment of patients with Endometriosis
	Apply the most precise and innovative genital radical surgical techniques in patients with Endometriosis
Management of Endometriosis Patients with Fertility Problems and Other Pathologies	Examine the possibilities of in vitro fertilization in patients with Endometriosis
	Assess the factors associated with infertility in patients with Endometriosis
	Provide adequate information on the possibilities of elective embryo freezing or fresh transfer
	Collaborate in the improvement of Endometriosis in pregnant patients

# **Civil Liability Insurance**

This institution's main concern is to guarantee the safety of the trainees and other collaborating agents involved in the internship process at the company. Among the measures dedicated to achieve this is the response to any incident that may occur during the entire teaching-learning process.

To this end, this entity commits to purchasing a civil liability insurance policy to cover any eventuality that may arise during the course of the internship at the center.

This liability policy for interns will have broad coverage and will be taken out prior to the start of the practical training period. That way professionals will not have to worry in case of having to face an unexpected situation and will be covered until the end of the internship program at the center.



# **General Conditions of the Internship Program**

The general terms and conditions of the internship program agreement shall be as follows:

- 1. TUTOR: During the Hybrid Master's Degree, students will be assigned with two tutors who will accompany them throughout the process, answering any doubts and questions that may arise. On the one hand, there will be a professional tutor belonging to the internship center who will have the purpose of guiding and supporting the student at all times. On the other hand, they will also be assigned with an academic tutor whose mission will be to coordinate and help the students during the whole process, solving doubts and facilitating everything they may need. In this way, the student will be accompanied and will be able to discuss any doubts that may arise, both clinical and academic.
- 2. DURATION: The internship program will have a duration of three continuous weeks, in 8-hour days, 5 days a week. The days of attendance and the schedule will be the responsibility of the center and the professional will be informed well in advance so that they can make the appropriate arrangements.
- 3. ABSENCE: If the students does not show up on the start date of the Hybrid Master's Degree, they will lose the right to it, without the possibility of reimbursement or change of dates. Absence for more than two days from the internship, without justification or a medical reason, will result in the professional's withdrawal from the internship, therefore, automatic termination of the internship. Any problems that may arise during the course of the internship must be urgently reported to the academic tutor.

- **4. CERTIFICATION**: Professionals who pass the Hybrid Master's Degree will receive a certificate accrediting their stay at the center.
- **5. EMPLOYMENT RELATIONSHIP:** the Hybrid Master's Degree shall not constitute an employment relationship of any kind.
- **6. PRIOR EDUCATION:** Some centers may require a certificate of prior education for the Hybrid Master's Degree. In these cases, it will be necessary to submit it to the TECH internship department so that the assignment of the chosen center can be confirmed.
- 7. DOES NOT INCLUDE: The Hybrid Master's Degree will not include any element not described in the present conditions. Therefore, it does not include accommodation, transportation to the city where the internship takes place, visas or any other items not listed

However, students may consult with their academic tutor for any questions or recommendations in this regard. The academic tutor will provide the student with all the necessary information to facilitate the procedures in any case.





# tech 50 | Where Can | Do the Clinical Internship?

The student will be able to complete the internship of this Hybrid Master's Degree at the following centers:



#### Hospital Maternidad HM Belén

Country Spain La Coruña

Address: R. Filantropía, 3, 15011, A Coruña

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

#### Related internship programs:

- Update in Assisted Reproduction - Hospitals and Health Services Management



#### Hospital HM Rosaleda

Country Spain La Coruña

Address: Rúa de Santiago León de Caracas, 1, 15701, Santiago de Compostela, A Coruña

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

#### Related internship programs:

- Hair Transplantation - Orthodontics and Dentofacial Orthopedics



#### Hospital HM San Francisco

Country City León

Address: C. Marqueses de San Isidro, 11, 24004, León

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

#### Related internship programs:

- Update in Anesthesiology and Resuscitation - Trauma Nursing



#### Hospital HM Regla

Country City Spain León

Address: Calle Cardenal Landázuri, 2. 24003. León

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

#### Related internship programs:

- Update on Psychiatric Treatment in Minor Patients



### **Hospital HM Nou Delfos**

Country Spain Barcelona

Address: Avinguda de Vallcarca, 151, 08023 Barcelona

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

#### Related internship programs:

- Aesthetic Medicine - Clinical Nutrition in Medicine



### **Hospital HM Madrid**

Country Spain Madrid

Address: Pl. del Conde del Valle de Súchil, 16, 28015. Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain

#### Related internship programs:

- Palliative Care

- Anaesthesiology and Resuscitation



### Hospital HM Montepríncipe

Country Spain Madrid

Address: Av. de Montepríncipe, 25, 28660, Boadilla del Monte, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

#### Related internship programs:

- Palliative Care

Aesthetic Medicine



### **Hospital HM Torrelodones**

Country Spain Madrid

Address: Av. Castillo Olivares, s/n, 28250, Torrelodones, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

#### Related internship programs:

Anaesthesiology and Resuscitation

- Palliative Care



# Where Can I Do the Clinical Internship? | 51 tech



### **Hospital HM Sanchinarro**

Country City
Spain Madrid

Address: Calle de Oña, 10, 28050, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

#### Related internship programs:

- Anaesthesiology and Resuscitation - Palliative Care



### Hospital HM Nuevo Belén

Country City
Spain Madrid

Address: Calle José Silva, 7, 28043, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

#### Related internship programs:

- General and Digestive System Surgery
- Clinical Nutrition in Medicine



### Hospital HM Puerta del Sur

Country City
Spain Madrid

Address: Av. Carlos V, 70, 28938, Móstoles, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

#### Related internship programs:

- Palliative Care - Clinical Ophthalmology



#### Policlínico HM Cruz Verde

Country City
Spain Madrid

Address: Plaza de la Cruz Verde, 1-3, 28807, Alcalá de Henares, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

#### Related internship programs:

- Advanced Clinical Podiatry
- Optical Technologies and Clinical Optometry

# tech 52 | Where Can | Do the Clinical Internship?



#### Policlínico HM Distrito Telefónica

Country City
Spain Madrid

Address: Ronda de la Comunicación, 28050, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

#### Related internship programs:

- Optical Technologies and Clinical Optometry - General and Digestive System Surgery



### Policlínico HM Gabinete Velázquez

Country City
Spain Madrid

Address: C. de Jorge Juan, 19, 1° 28001, 28001, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

#### Related internship programs:

- Clinical Nutrition in Medicine - Aesthetic Plastic Surgery



#### Policlínico HM La Paloma

Country City Spain Madrid

Address: Calle Hilados, 9, 28850, Torrejón de Ardoz, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

#### Related internship programs:

- Advanced Operating Room Nursing - Orthodontics and Dentofacial Orthopedics



#### Policlínico HM Las Tablas

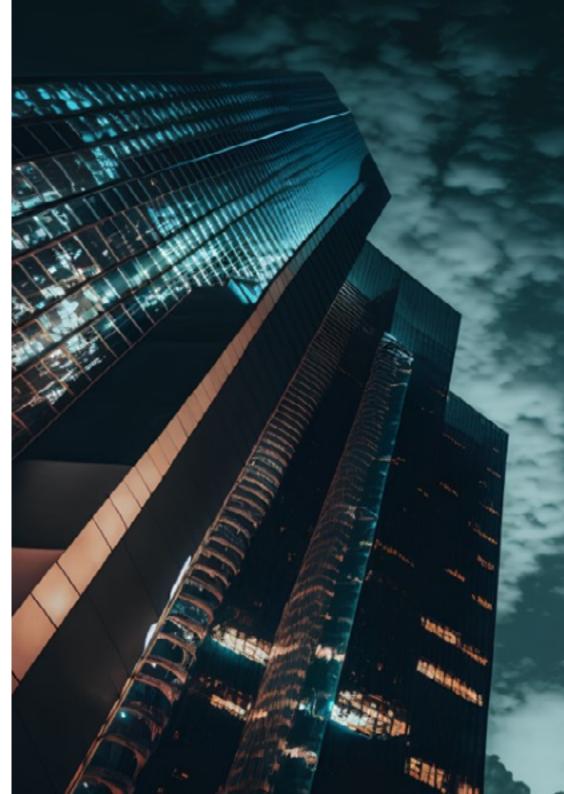
Country City
Spain Madrid

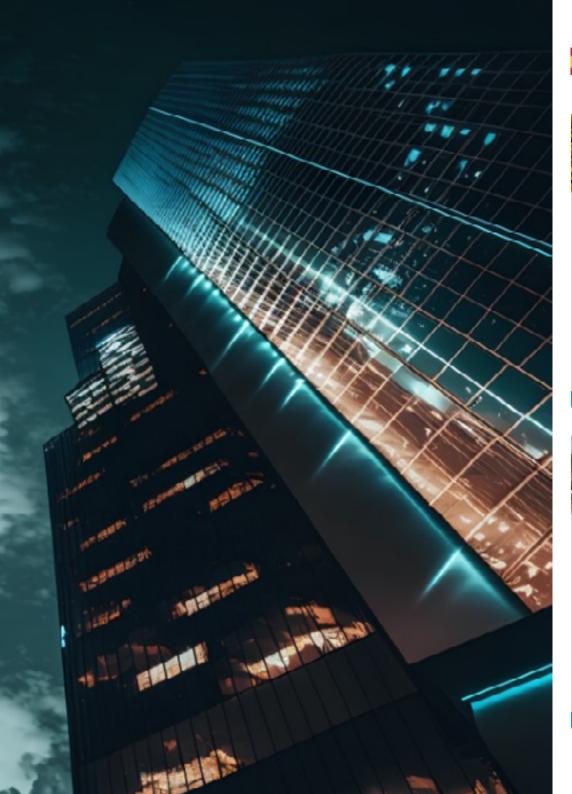
Address: C. de la Sierra de Atapuerca, 5, 28050, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

#### Related internship programs:

- Trauma Nursing
- Diagnosis in Physiotherapy





# Where Can I Do the Clinical Internship? | 53 tech



#### Policlínico HM Moraleja

Country City
Spain Madrid

Address: P.º de Alcobendas, 10, 28109, Alcobendas, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

#### Related internship programs:

- Rehabilitation Medicine in Acquired Brain Injury Management



#### Policlínico HM Sanchinarro

Country City
Spain Madrid

Address: Av. de Manoteras, 10, 28050, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

Related internship programs:



#### Policlínico HM Rosaleda Lalín

Country City
Spain Pontevedra

Address: Av. Buenos Aires, 102, 36500, Lalín, Pontevedra

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

#### Related internship programs:

- Advances in Hematology and Hemotherapy

- Neurological Physiotherapy



#### Policlínico HM Imi Toledo

Country City
Spain Toledo

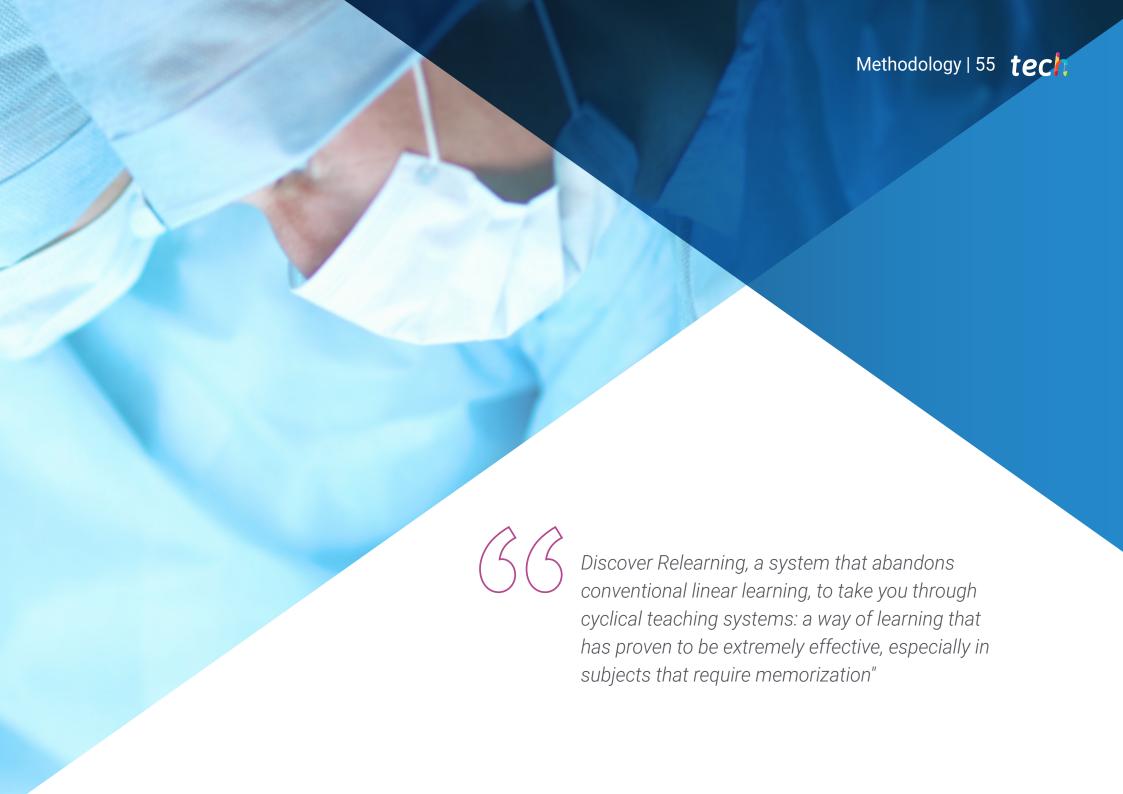
Address: Av. de Irlanda, 21, 45005, Toledo

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

#### Related internship programs:

- Electrotherapy in Rehabilitation Medicine - Hair Transplantation





# tech 56 | Methodology

#### 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:

- 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.



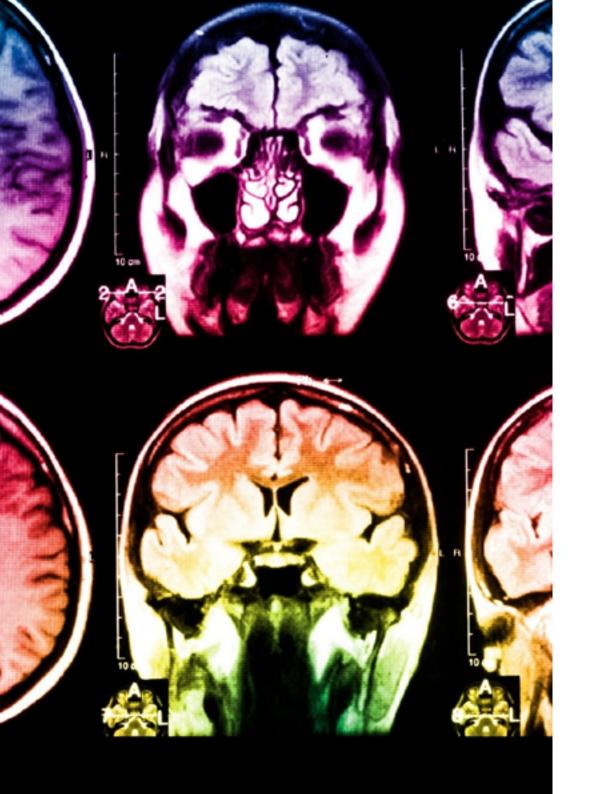
# Relearning Methodology

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.





# Methodology | 59 tech

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.

# tech 60 | Methodology

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**

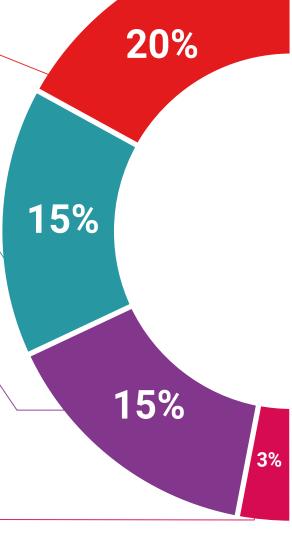
TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many 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.

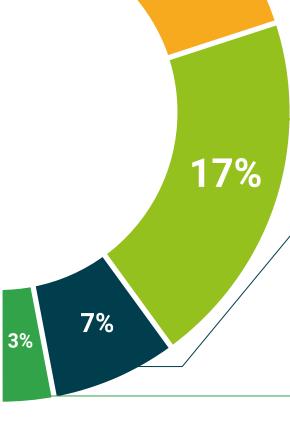
The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



#### **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.









# tech 64 | Certificate

This program will allow you to obtain your **Hybrid 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.

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

Hybrid Master's Degree in Endometriosis

This is a program of 1,620 hours of duration equivalent to 65 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

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.

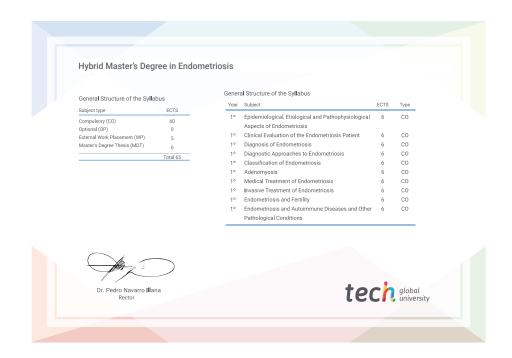
Title: Hybrid Master's Degree in Endometriosis

Course Modality: Hybrid (Online + Clinical Internship)

Duration: 12 months

Certificate: TECH Global University

Recognition: 60 + 5 ECTS Credits



<sup>\*</sup>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.



# Hybrid Master's Degree Endometriosis

Modality: Hybrid (Online + Clinical Internship)

Duration: 12 months

Certificate: TECH Global University

60 + 5 créditos ECTS

