Postgraduate Diploma

Infectious Pathology and Uveitis of the Macula, Retina and Vitreous

tech global university

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Postgraduate Diploma

Infectious Pathology and Uveitis of the Macula, Retina and Vitreous

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

Website: **www.techtitute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-infectious-pathology-uveitis-macula-retina-vitreous**

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Introduction

Infectious diseases of the eye and uveitis can cause serious complications in patients' vision. For this reason, early diagnosis and treatment can bring about great improvements in patients. With this program, TECH Global University seeks to specialize professionals in these two fields of great demand in the world of ophthalmology so that they are able to provide adequate care to their patients.

Be able to recognize the different infectious pathologies that affect the vision and make early diagnoses that allow a rapid improvement in patients"

Knowledge of the anatomy and physiology of vision is very important for the understanding of diseases and the symptoms they produce. Therefore, this program aims to prepare professionals in this field, so that they can perform a quality praxis with their patients. For this purpose, TECH Global University offers a detailed description of the most current exploratory techniques, focused on the care of patients with infectious pathologies or uveitis of the macula, retina or vitreous.

In daily clinical practice, one of the most frustrating disciplines for both patients and clinicians is the treatment of uveitis. A bad diagnosis leads to a bad treatment and, in the end, to a chronification of inflammatory processes that lead to the slow but inexorable loss of vision of the patient. The detailed knowledge of the different causes of inflammatory processes of the uvea, retina and vitreous, helps in a decisive way to face this difficult discipline from the perspective of knowledge, so that patients are treated safely, generating mutual trust and avoiding the frustrations that a wrong diagnosis generates.

In addition, most of the infections that can affect the retina and vitreous are detailed in this Postgraduate Diploma. Knowledge of infectious diseases that can affect the eye is of utmost importance for a clinician to make a first differential diagnosis and guide the treatment of a patient. Therefore, infections caused by the vast majority of currently known microorganisms are treated comprehensively.

This program has a teaching staff specialized in ocular pathology and surgery, who contribute both their practical experience in their day-to-day private practice, as well as their long experience in teaching at national and international level. In addition, it has the advantage of being 100% online, so the student can decide from where to study and at what time to do it. This way, you will be able to flexibly self-direct your study hours.

This **Postgraduate Diploma in Infectious Pathology and Uveitis of the Macula, Retina and Vitreous** contains the most complete and up-to-date scientific program on the market. The most important features include:

- The development of clinical cases presented by experts in ocular pathology and surgery
- 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
- The presentation of practical workshops on procedures and techniques
- An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course
- Action protocols and clinical practice guidelines, which cover the most important latest developments in this specialist field
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Special emphasis on test-based medicine and research methodologies
- Content that is accessible from any fixed or portable device with an Internet connection

At TECH Global University, we offer you this high academic level education so that you can update your knowledge and offer a more personalized attention to your patients"

This Postgraduate Diploma is the best investment you can make in education to update your knowledge in Infectious Pathology and Uveitis of the Macula, Retina and Vitreous"

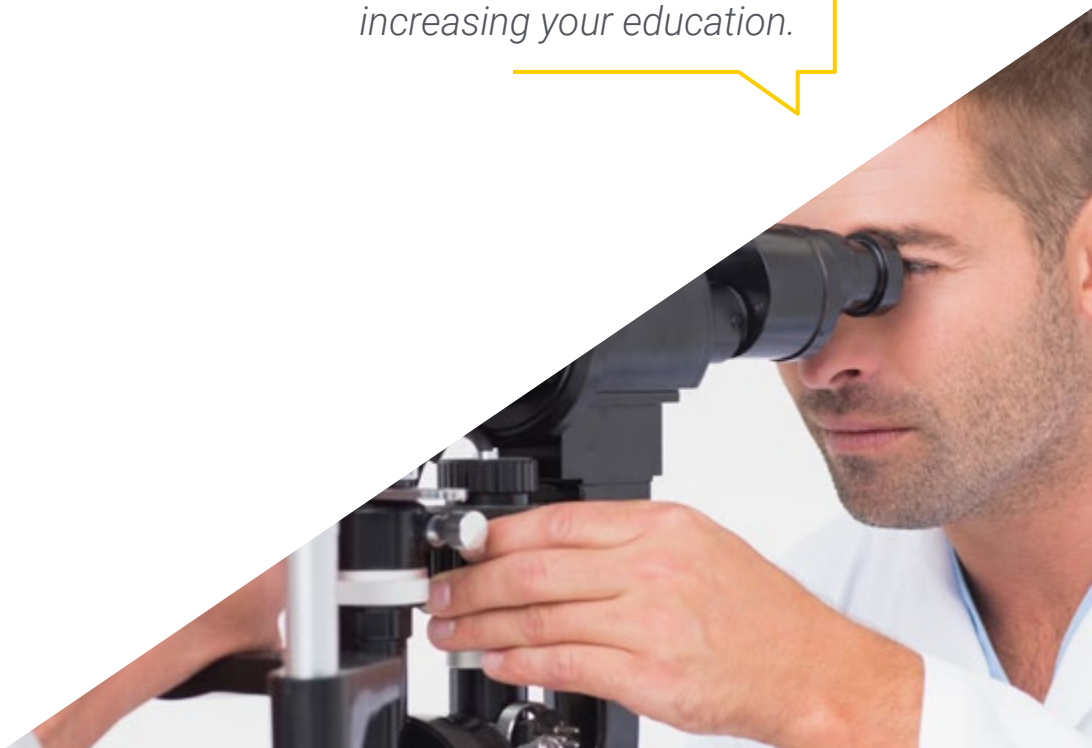
This 100% online Postgraduate Diploma will allow you to study from anywhere in the world. All you need is a computer or mobile device with an internet connection.

Our innovative teaching methodology will allow you to study as if you were dealing with real cases, and therefore increasing your education.

The teaching staff includes a team of prestigious urologists, who bring their experience to this educational program, as well as renowned specialists from leading scientific societies.

Its multimedia content, developed with the latest educational technology, will allow professionals to learn in a contextual and situated learning environment, i.e., a simulated environment that will provide immersive specialization for real situations.

The design of this program focuses on Problem-Based Learning, by means of which professionals must try to solve the different professional practice situations that are presented to them throughout the academic year. To do so, they will be assisted by an innovative interactive video system created by renowned experts in Infectious Pathology and Uveitis of the Macula, Retina and Vitreous, with extensive teaching experience.



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Objectives

The Postgraduate Diploma in Infectious Pathology and Uveitis of the Macula, Retina and Vitreous is aimed at facilitating the performance of health professionals with the latest advances and newest treatments in the sector.

This program will both bring a sense of confidence to your daily healthcare activities and help you grow professionally"

General Objectives

- Expand your knowledge about the anatomy and physiology of the retina, macula and vitreous
- Know in detail the physiology of colour vision and its functional tests
- Become familiar with the latest exploratory techniques such as angiography or OCT, for their application in a clinic
- Expand your knowledge about inflammatory diseases of the retina, macula and vitreous
- Know the diagnostic tests for uveitis, treatment of cystoid macular oedema, as well as other inflammatory diseases of the macula
- Delve into autoimmune retinopathies and masquerade syndromes
- Acquire a broad and in-depth knowledge of infectious diseases of the retina, macula and vitreous

Our goal is to achieve academic excellence and to help you achieve it too"

Specific Objectives

Module 1. Anatomy, Physiology and Exploratory and Functional Tests

- Learn about the ophthalmoscope and its examination lenses
- Understand the slit lamp and its exploratory alternatives
- Delve into the anatomy of the retina, macula and vitreous in all its possibilities
- To enhance knowledge of the ageing of the vitreous and the pathology it can cause
- An in-depth study of the physiology of vision and colour vision
- Knowledge of the optical pathway and its associated pathology
- Further explore the visual cortex
- Increase knowledge of electrophysiological tests that explore visual function
- Know retinography in all its modalities, fluorescein angiography and indocyanine green angiography
- Delve into the understanding of OCT and angio OCT
- Further in the study of autofluorescence
- In-depth study of ocular ultrasound

Module 2. Inflammatory Eye Diseases with Affectation of Macula, Retina and Vitreous

- Know the basic and exploratory principles of uveitis
- Learn about cystoid macular oedema
- Understand evanescent whitehead disease and associated diseases
- Know about acute multifocal posterior placoid disease
- Develop a thorough understanding of serpiginous choroiditis, Vogt-Koyanagi-Harada syndrome, multifocal choroiditis, sympathetic ophthalmia, autoimmune retinopathies, intermediate uveitis and masquerade syndromes

Module 3. Infectious Diseases of the Retina and Vitreous

- Acquire a general management of endophthalmitis
- Understanding ocular involvement caused by viruses such as human immunodeficiency, as well as more complicated conditions such as retinal infection by spirochetes or ocular toxoplasmosis, among others

03

Course Management

The creation of the materials has been carried out by a team of leading professionals in ophthalmology, who perform their professional activity in the main hospitals in the country, transferring to the program the experience gained in their jobs throughout their careers.

The best professionals in this field have joined forces to offer you the most specialised and up-to-date knowledge in the field"

Management

Dr. Armadá Maresca, Félix

- Head of Service, Ophthalmology Department, Hospital Universitario La Paz, Madrid
- Doctor of Medicine, Autonomous University of Madrid
- Degree in Medicine, University of Alcalá de Henares
- Director of the Department of Ophthalmology at the San Francisco de Asís University Hospital in Madrid
- Certified Ophthalmic Photographer, University of Wisconsin, Madison, U.S.
- The Chalfont Project, Chalfont St Giles, HP8 4XU United Kingdom
- ESADE - Course in Strategic Management of Clinical Services
- IESE - VISIONA course, clinical management in ophthalmology
- Professor in the Degree of Medicine at the Alfonso X El Sabio University
- Lecturer in the Master "Expert in Health Management in Ophthalmology" of the Ministry of Health of the Community of Madrid
- Member of the Society of Ophthalmology of Madrid
- External Collaborator of Several Companies in the Medical Sector

Professors

Dr. Gómez-Ulla de Irazazába, Francisco Javier

- Medical Director and Founder of the Ophthalmological Institute Gómez-Ulla, Santiago de Compostela
- Doctor of Medicine
- Degree in Medicine from the University of Santiago de Compostela
- Specialist in Ophthalmology
- Professor of Ophthalmology at the University of Santiago de Compostela
- Member of scientific societies such as American Academy of Ophthalmology, Societé Française d'Ophtalmologie, Panamericam Association of Ophthalmology, Spanish society of Ophthalmology, Spanish society of Retina and Vitreous, and Galician society of Ophthalmology
- Member of the Limnopharma Advisory Board
- Researcher/consultant for Alcon, Allergan, Bayer Hispania S.L, Boehringer Ingelheim, Novartis Farmacéutica S.A Ophthoctech, Roche, Santem, Zeiss

Dr. Cabrera López, Francisco Antonio

- Head of the Ophthalmology Service of the University Hospital Complex Insular-Materno Infantil of Gran Canaria
- Medical Director of the Canary Islands Retina Institute (ICARE)
- Associate Professor and Member of the Department of Medical and Surgical Sciences of Las Palmas de Gran Canaria (ULPGC)
- Degree in Medicine and Surgery, University of La Laguna, Tenerife
- Degree in Medicine from the Autonomous University of Gran Canaria (ULPGC)
- Ex-President of the Spanish Society of Ophthalmology
- Member of the Following Ophthalmological Societies: American Academy of Ophthalmology (AAO), EURETINA, Spanish Society of Ophthalmology (SEO), Spanish Society of Retina and Vitreous (SERV), Canary Society of Ophthalmology (SCO)

Dr. Fonollosa, Alex

- Assistant of the Ophthalmology Service at Cruces University Hospital (Retina and Uveitis section)
- PhD in Medicine in 2007 from the Autonomous University of Barcelona (Outstanding Award)
- Degree in Medicine at the Autonomous University of Barcelona
- Coordinator of the Retina and Uveitis Unit at the Ophthalmological Institute of Bilbao
- Specialist in Ophthalmology
- Assistant at the Ophthalmology Department of the Valld'Hebron Hospital in Barcelona
- Associate Professor of Ophthalmology at the University of the Basque Country
- Main researcher of the Ophthalmology research group at BioCruces and Member of the Experimental Ophthalmobiology Group at the University of the Basque Country

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Structure and Content

The structure of the syllabus has been designed by a team of professionals who are knowledgeable regarding the implications of medical education in the approach to patients, aware of the relevance of current preparation and committed to quality teaching through new educational technologies.

This Postgraduate Diploma contains the most complete and up-to-date scientific program on the market"

Module 1. Anatomy, Physiology and Exploratory and Functional Tests

1.1. Historical Notes and Classical Exploration in Consultation
- 1.1.1. History to Understand the Present
- 1.1.2. The Ophthalmoscope and its Examination Lenses
- 1.1.3. The Slit Lamp and its Examination Lenses
- 1.1.4. Historical Notes of Current Exploration Techniques

1.2. Macula and Retina Atanomy
- 1.2.1. Compared Anatomy.
- 1.2.2. Macula and Retinal Histology
- 1.2.3. Vascularisation of the Retina and Macula
- 1.2.4. Innervation of the Retina and Macula

1.3. Vitreous anatomy and Physiology
- 1.3.1. Vitreous Embryology
- 1.3.2. Composition of the Vitreous Gel
- 1.3.3. Hyaloid Insertions and Adhesions
- 1.3.4. Ageing and Alterations of the Vitreous Gel
- 1.3.5. The Vitreous in Myopic Patients
- 1.3.6. The Vitreous in Certain Systemic Diseases
- 1.3.7. Vitreous as a Trigger for Various Retinal and Macular Pathologies

1.4. Physiology of Vision and Colour Vision
- 1.4.1. Functional Layers of the Retina
- 1.4.2. Photoreceptor Physiology
- 1.4.3. Functional Circuits of the Retina
- 1.4.4. Optical Route
- 1.4.5. Physiology of the Visual Cortex
- 1.4.6. Binocularity
- 1.4.7. Colour Vision

1.5. Macular Functional Testing
- 1.5.1. Basis of Macular Functional Testing
- 1.5.2. Electroretinogram, Electrooculogram and Evoked Potentials
- 1.5.3. Multifocal Electroretinogram
- 1.5.4. Microperimetry

1.6. Fundus Photography, Intravenous Fluorescein Angiography and Indocyanine Green Angiography
- 1.6.1. Analogue and Digital Retinography
- 1.6.2. Widefield Retinography, Most Important Current Platforms
- 1.6.3. Properties of Sodium Fluorescein and its Adverse Effects
- 1.6.4. Normal AFG Pattern (Angiofluoresceingraphy)
- 1.6.5. Pathological Angiographic Patterns, Hyperfluorescence, Hypofluorescence and Window Effect
- 1.6.6. Current Role and Clinical Indications of AFG
- 1.6.7. Properties of Indocyanine Green and its Pharmacokinetics
- 1.6.8. Pathological Angiographic Patterns of Indocyanine Green

1.7. Fundus Autofluorescence
- 1.7.1. Autofluorescence Detection and Recording
- 1.7.2. Autofluorescence Detection and Recording
- 1.7.3. Normal Autofluorescence Patterns
- 1.7.4. Pathologic Autofluorescence Patterns
- 1.7.5. Autofluorescence in Retinal Diseases

1.8. Ultrasonic Retinal Evaluation
- 1.8.1. Physical Bases of Ultrasound
- 1.8.2. Current Platforms and Probes for Ocular Ultrasound Scans
- 1.8.3. Current Ultrasound Methods and Modes
- 1.8.4. Ocular Ultrasound Patterns

1.9. Optical Coherence Tomography
- 1.9.1. Physical Principles of OCT (Optical Coherence Tomography)
- 1.9.2. Historical Evolution of OCT
- 1.9.3. Main OCT Platforms and Their Differential Characteristics
- 1.9.4. Normal OCT Patterns
- 1.9.5. Comparative Patterns of OCT Monitoring
- 1.9.6. OCT in Major Macular and Interface Pathologies

1.10. Angiography Using Optical Coherence Tomography
- 1.10.1. Basis of OCT Angiography
- 1.10.2. Main Platforms for Performing Angio OCT
- 1.10.3. Normal OCT Angiographic Patterns
- 1.10.4. Analysis and Artifacts in OCT Angiography
- 1.10.5. AngioOCT in the Main Macular Pathologies
- 1.10.6. Clinical Angio OCT in Face
- 1.10.7. Present and Future of Angio OCT

Module 2. Inflammatory Eye Diseases with Affectation of Macula, Retina and Vitreous

2.1. Diagnosis and Treatment of Uveitis
- 2.1.1. Diagnosis of Uveitis
  - 2.1.1.1. Systematic Approach to the Diagnosis of Uveitis
  - 2.1.1.2. Classification of Uveitis
  - 2.1.1.3. Localisation of Uveitis
  - 2.1.1.4. Approach to Patients, The clinical History as a Diagnostic Asset
  - 2.1.1.5. Detailed Eye Examination. Diagnostic Guidance
  - 2.1.1.6. Most Common Tests Used for the Study of Uveitis
  - 2.1.1.7. Differential Diagnosis Tables
- 2.1.2. Imaging Tests Used for the Study of Uveitis. Systemic Imaging Tests
- 2.1.3. Ophthalmological Imaging Tests. Fundus Photograph, AFG, ICG, OCT, AngioOCT, BMU, Ultrasound, etc.
- 2.1.4. General Treatment for Uveitis
  - 2.1.4.1. Corticosteroids
  - 2.1.4.2. Mydriatic and Cycloplegic Agents
  - 2.1.4.3. Nonsteroidal Anti-Inflammatory Drugs
  - 2.1.4.4. Immunosuppressive Treatments
  - 2.1.4.5. New Biological Therapies to Treat Uveitis
- 2.1.5. Diagnostic Surgery for Uveitis. Retinal Biopsies
- 2.1.6. Therapeutic Surgery: Cornea, Iris, Cataracts, Glaucoma, Vitreous and Retina. Comprehensive Treatment for Uveitis

2.2. Cystoid Macular Edema
- 2.2.1. Pathophysiology, Blood-Retinal Barrier Function
- 2.2.2. Histology of Cystoid, Macular Edema
- 2.2.3. Rupture Mechanisms of the Blood-Retinal Barrier
- 2.2.4. Exploration of Cystoid Macular Edema. Fluorescein Angiographic Patterns, OCT, OCT and Clinical in Face
- 2.2.5. Vitreous Fluorophotometry
- 2.2.6. Treatment of Post-Surgical Macular Edema

2.3. White Spot Syndromes and Associated Diseases
- 2.3.1. Birdshot: Chorioretinopathy in Buckshots
- 2.3.2. Placoid Diseases
- 2.3.3. Multifocal Choroiditis and Panuveitis, Internal Punctate Choroidopathy Syndrome, and Progressive Subretinal Fibrosis and Uveitis.
- 2.3.4. Multiple Evanescent White Plaques Syndrome: Main Characteristics, Evolution and Differential Diagnosis
- 2.3.5. Acute Zonal External Retinopathy
- 2.3.6. Acute Macular Neuroretinopathy

2.4. Acute Multifocal Posterior Placoid Epitheliopathy
- 2.4.1. Etiopathogenesis
- 2.4.2. Clinical Symptoms
- 2.4.3. Angiographic Scanning Patterns
- 2.4.4. OCT, AngioOCT Scanning
- 2.4.5. Natural History of the Disease
- 2.4.6. Differential Diagnosis
- 2.4.7. Treatment

2.5. Serpiginous Choroiditis
- 2.5.1. Etiopathogenesis of Serpiginous Choroiditis
- 2.5.2. Clinical and Natural history of the Disease
- 2.5.3. Techniques for Examining Serpiginous Choroiditis
- 2.5.4. Angiographic Patterns and Structural OCT
- 2.5.5. Differential Diagnosis
- 2.5.6. Treatment

2.6. Vogt-Koyanagi-Harada Syndrome
- 2.6.1. Introduction and Classification of Vogt-Koyanagi-Harada syndrome
- 2.6.2. Macular Damage
- 2.6.3. Natural History of the Disease
- 2.6.4. Scanning, Angiographic Patterns, OCT Imaging. AngioOCT
- 2.6.5. Differential Diagnosis
- 2.6.6. Treatment of Associated and Recurrent Neovascular Membranes

2.7. Multifocal Choroiditis
- 2.7.1. Epidemiology of Multifocal Choroiditis
- 2.7.2. Etiopathogenesis of Multifocal Choroiditis
- 2.7.3. Clinical Symptoms
- 2.7.4. Exploration of Multifocal Choroiditis. Angiographic Patterns, ICG, OCT and Angio OCT
- 2.7.5. Differential Diagnosis
- 2.7.6. Natural History of Multifocal Choroiditis
- 2.7.7. Current Treatment

2.8. Sympathetic Ophthalmia
- 2.8.1. Epidemiology of Sympathetic Ophthalmia
- 2.8.2. Pathophysiology of Sympathetic Ophthalmia
- 2.8.3. Immunopathology of Sympathetic Ophthalmia
- 2.8.4. Clinical Findings
- 2.8.5. Scanning, Angiographic Pattern, Structural OCT and Angio OCT
- 2.8.6. Differential Diagnosis
- 2.8.7. Natural History of the Disease, Course and Possible Complications
- 2.8.8. Treatment, Prevention and Prognosis

2.9. Autoimmune Retinopathies
- 2.9.1. Epidemiology and Mechanisms of Action
- 2.9.2. Clinical Manifestations of Autoimmune Retinopathies
- 2.9.3. Diagnosis, Angiographic Patterns, OCT and AngioOCT
- 2.9.4. Differential Diagnosis
- 2.9.5. Natural History, Evolution and Possible Complications
- 2.9.6. Local and Systemic Treatments
- 2.9.7. Prognosis

2.10. Ocular Sarcoidosis
- 2.10.1. General Considerations in Ocular Sarcoidosis
- 2.10.2. Natural History and Prognosis of Ocular Sarcoidosis
- 2.10.3. Ocular Manifestations of Sarcoidosis
- 2.10.4. Posterior Segment Disease
- 2.10.5. Ocular Scanning, AFG Patterns, Structural OCT and OCT
- 2.10.6. Treatment for Retinal Sarcoidosis

2.11. Intermediate Uveitis
- 2.11.1. Introduction
- 2.11.2. Epidemiology and Demography
- 2.11.3. Clinical Findings, Examination of Intermediate Uveitis
- 2.11.4. Histopathology of Intermediate Uveitis
- 2.11.5. Clinical Course and Complications
- 2.11.6. Treatment for Intermediate Uveitis

2.12. Masquerade Syndromes
- 2.12.1. Malignant Uveitis Masquerade Syndromes
  - 2.12.1.1. Intraocular Central Nervous System Lymphoma
  - 2.12.1.2. Leukemia
  - 2.12.1.3. Malignant Melanoma
  - 2.12.1.4. Retinoblastoma
  - 2.12.1.5. Metastasis
  - 2.12.1.6. Paraneoplastic Syndromes
- 2.12.2. Endophthalmitis Masquerade Syndromes
  - 2.12.2.1. Chronic Postoperative Endophthalmitis
  - 2.12.2.2. Endogenous Endophthalmitis
- 2.12.3. Non-malignant and Non-infectious Masquerade Syndromes
  - 2.12.3.1. Regmatogenic Retinal Detachment
  - 2.12.3.2. Retinitis Pigmentosa
  - 2.12.3.3. Intraocular Foreign Bodies
  - 2.12.3.4. Pigmentary dispersion
  - 2.12.3.5. Ocular Ischaemia Syndrome
  - 2.12.3.6. Juvenile Xanthogranuloma

Module 3. Infectious Diseases of the Retina and Vitreous

3.1. General Management of Endophthalmitis
- 3.1.1. Medical History of the Infection Process
- 3.1.2. Eye Examination According to the Endophthalmitis Process
- 3.1.3. Sampling for Cultivation
- 3.1.4. Gateway and Systemic Treatment
- 3.1.5. Intravitreal Injection Treatment of The Endophthalmitis Process
- 3.1.6. Surgical Treatment for Ocular Endophthalmitis

3.2. Eye Infection Due to Human Immunodeficiency Virus (HIV)
- 3.2.1. Uveitis Due To HIV
- 3.2.2. Eye Examination in HIV Patients
- 3.2.3. HIV In Eyes, Chorioretinal Involvement, HIV Retinitis
- 3.2.4. HIV-associated opportunistic infections. Cytomegalovirus Retinitis, Varicella Zoster Virus, Ocular Toxoplasmosis, Pneumocystosis, Tuberculosis, Cryptococcosis, Candidiasis, Other Opportunistic Infections
- 3.2.5. Uveitis Linked to HIV Drug Treatments
- 3.2.6. Medical Treatment for Ocular HIV, Systemic Intravitreal and Depot Treatments
- 3.2.7. Surgical Treatment of HIV Retinitis or Opportunistic Infections

3.3. Mycobacterial Infections
- 3.3.1. Definition of Mycobacterium Tuberculosis Eye Infection
- 3.3.2. History and Epidemiology
- 3.3.3. Clinical Presentation
- 3.3.4. Pathophysiology of Ocular Tuberculosis
- 3.3.5. Pathophysiology of Ocular Tuberculosis
- 3.3.6. Tuberculosis Diagnostic Tests, The Tuberculin Skin Test and Other Diagnostic Tests.
- 3.3.7. Ocular Examination, Angiographic Patterns, OCT and AngioOCT
- 3.3.8. Treatment of Tuberculosis and Ocular Tuberculosis
- 3.3.9. Possible Complications and Prognosis of Mycobacterial Infections

3.4. Spirochetal Infections
- 3.4.1. Definition of Treponema Pallidum Syphilis Infection
- 3.4.2. History and Epidemiology of Syphilis
- 3.4.3. Clinical Systemic Presentation
- 3.4.4. Ocular Clinical Presentation, Treponema Pallidum Uveitis. Anterior and Posterior Uveitis. Clinical Manifestations
- 3.4.5. Pathophysiology and Pathogenesis
- 3.4.6. Diagnostic Tests for Treponema Pallidum
- 3.4.7. Systemic and Ocular Treatment for Syphilis Associated Uveitis
- 3.4.8. Complications and Prognosis

3.5. Ocular Toxoplasmosis
- 3.5.1. Definition and Natural History of Toxoplasma Gondii Infection
- 3.5.2. Pathogenesis, the Toxoplasma Gondii Parasite
- 3.5.3. Parasite Life Cycle, Transmission
- 3.5.4. Immunobiology and Epidemiology
- 3.5.5. Congenital and Acquired Toxoplasmosis. Clinical Manifestations
- 3.5.6. Toxoplasmosis in Immunocompromised Patients
- 3.5.7. Diagnosis and Examination of Ocular Toxoplasmosis. Fundus photograph, AFG and ICG. OCT and AngioOCT
- 3.5.8. Atypical Forms of Ocular Toxoplasmosis. Angiographic and Retinographic Examination
- 3.5.9. Differential Diagnosis
- 3.5.10. Diagnostic Tests for Toxoplasma Gondii
- 3.5.11. Surgical Treatment for Ocular Endophthalmitis
- 3.5.12. Surgical Treatment of Ocular Toxoplasmosis
- 3.5.13. Prevention, Prognosis and Conclusions

3.6. Toxocariasis Eye Infection
- 3.6.1. Definition of Infection Caused by Toxocara Canis or Toxocara Cati
- 3.6.2. Etiology, The Micro-Organism, Its Life Cycle and Human Infection
- 3.6.3. Systemic and Ocular Clinical Manifestations
- 3.6.4. Natural History of Toxocariasis
- 3.6.5. Immunopathology
- 3.6.6. Diagnostics, Diagnostic and Serological tests
- 3.6.7. Ocular Complications of Toxocariasis
- 3.6.8. Differential Diagnosis of Toxocariasis
- 3.6.9. Medical and Surgical Treatment of Toxocariasis
- 3.6.10. Prognosis and Conclusions on Ocular Toxocariasis

3.7. Ocular Ascariasis
- 3.7.1. Definition of Ascaris Lumbricoides Nematode Infection
- 3.7.2. Natural History and Epidemiology
- 3.7.3. Systemic Clinical Features
- 3.7.4. Ocular Symptoms of Ascariasis
- 3.7.5. Immunology, Pathology and Pathogenesis, The Life Cycle
- 3.7.6. Systemic Diagnosis and Ocular Diagnosis. Basic Functional and Imaging Tests
- 3.7.7. Systemic Treatment and Eye Treatment
- 3.7.8. Possible Complications and Conclusions

3.8. Ocular Onchocerciasis
- 3.8.1. Definition of Onchocerca Volvulus Infection
- 3.8.2. Natural History, Epidemiology, Geographical Distribution
- 3.8.3. Demographic Factors, Ecology and Biology of Onchocerciasis
- 3.8.4. Systemic Clinical Manifestations of Onchocerciasis
- 3.8.5. Ophthalmological Symptoms of Onchocerciasis, Anterior Pole and Posterior Segment Involvement
- 3.8.6. Etiology, Transmission, Life Cycle of Onchocerca Volvulus
- 3.8.7. Pathogenesis and Pathology
- 3.8.8. Clinical and Laboratory Diagnostics
- 3.8.9. Differential Diagnosis
- 3.8.10. Systemic and Ocular Treatment of Onchocerciasis
- 3.8.11. Natural History and Prognosis

3.9. Ocular Loiasis
- 3.9.1. Definition of Loa Loa Filaria Infection
- 3.9.2. History, Epidemiology, Morphology
- 3.9.3. Systemic Clinical and Ocular Manifestations Anterior Pole and Posterior Pole
- 3.9.4. Systemic and Ocular Diagnosis
- 3.9.5. Systemic and Ocular Treatment
- 3.9.6. Prevention and Chemoprophylaxis

3.10. Ocular Cysticercosis
- 3.10.1. Definition of Cysticercus Cellulose Infection
- 3.10.2. History and Epidemiology
- 3.10.3. Systemic and Ocular Clinical Features
- 3.10.4. Pathogenesis and Pathology
- 3.10.5. Systemic and Ocular Diagnosis, Imaging Tests. Ultrasound
- 3.10.6. Differential Diagnosis
- 3.10.7. Treatment According to the Location of the Larvae
- 3.10.8. Complications and Prognosis

3.11. Ocular Borreliosis
- 3.11.1. Definition of Lyme Disease Due to Borrelia Burgdorferi Infection
- 3.11.2. History and Epidemiology
- 3.11.3. Systemic Clinical Symptoms According To Staging
- 3.11.4. Ocular Clinical Manifestations, Early Disease, Disseminated and Persistent Disease
- 3.11.5. Pathogenesis.
- 3.11.6. Systemic Diagnosis and Ocular Diagnosis
- 3.11.7. Systemic and Ocular Treatment
- 3.11.8. Prognosis, Possible Complications

3.12. Bartonella Eye Infection
- 3.12.1. Definition of Bartonella Infections
- 3.12.2. History and Epidemiology
- 3.12.3. Systemic and Ocular Clinical Features, Retinal and Vitreous Damage
- 3.12.4. Pathogenesis and Immunology
- 3.12.5. Systemic Diagnosis and Ocular Diagnosis
- 3.12.6. Systemic and Ocular Treatment for Bartonellosis
- 3.12.7. Differential Diagnosis
- 3.12.8. Prognosis and Conclusions

3.13. Leptospirosis and Eye Infection
- 3.13.1. Definition of Leptospira Interrogans Infection
- 3.13.2. Epidemiology
- 3.13.3. Clinical Features of Non-ocular Disease
- 3.13.4. Clinical Signs of Leptospira Eye Disease
- 3.13.5. Pathogenesis
- 3.13.6. Laboratory Diagnostics and Ocular Diagnostics
- 3.13.7. Differential Diagnosis
- 3.13.8. Systemic and Ocular Treatment of Leptospira Infection
- 3.13.9. Prognosis and Conclusions

3.14. Ocular Brucellosis
- 3.14.1. Definition of Brucella Spp. Infection
- 3.14.2. History, Etiology, Epidemiology
- 3.14.3. Molecular Genetics, Pathology and Immunology
- 3.14.4. Systemic Clinical features, Subclinical, Acute, Subacute and Chronic Disease
- 3.14.5. Ocular Manifestations
- 3.14.6. Systemic and Ocular Diagnosis
- 3.14.7. Systemic and Ocular Treatment for Bartonellosis
- 3.14.8. Prognosis, Prevention and Conclusions

3.15. Ocular Whipple's Disease
- 3.15.1. Definition Signs of Leptospira Eye Disease
- 3.15.2. History, Epidemiology, Etiology, Pathology and Immunology
- 3.15.3. Extraocular Clinical Features
- 3.15.4. Ocular Clinical Features, Uveitis, Neurophthalmology
- 3.15.5. Systemic and Ocular Diagnosis
- 3.15.6. Differential Diagnosis
- 3.15.7. Systemic and Ocular Medical Treatment. Surgical Management
- 3.15.8. Prognosis and Conclusions

3.16. Rickettsial Eye Disease
- 3.16.1. Definition, Microbiological Characteristics and Classification of Rickettsioses
- 3.16.2. History. Epidemiology. Pathophysiology. Immunology. Pathology and Pathogenesis
- 3.16.3. Clinical Characteristics. Systemic and Ocular Involvement
- 3.16.4. Systemic, laboratory and ocular diagnosis
- 3.16.5. Systemic and Ocular Treatment
- 3.16.6. Prognosis, Complications and Conclusions on Ocular Rickettsiosis

3.17. Eye Leprosy
- 3.17.1. Definition of Ocular Hansen's Disease Caused by Mycobacterium Leprae
- 3.17.2. History and Epidemiology
- 3.17.3. Systemic and Ocular Clinical Features
- 3.17.4. Posterior Segment Ocular Complications. Ocular Changes During Acute Leprosy Reactions
- 3.17.5. Ocular Histopathology
- 3.17.6. Pathogenesis and Immunology
- 3.17.7. Systemic and Ocular Diagnosis
- 3.17.8. Differential Diagnosis
- 3.17.9. Treatment of Systemic Disease and Eye Disease
- 3.17.10. Management of Ocular Complications

3.18. Herpes Virus Eye Infections
- 3.18.1. Virology, Herpes Simplex Virus and Varicella Zoster Virus
  - 3.18.1.1. Clinical Features, Acute Retinal Necrosis and Other Retinopathies
  - 3.18.1.2. Diagnostics, Functional and Imaging tests, AFG, OCT and OCT
  - 3.18.1.3. Differential Diagnosis of Acute Retinal Necrosis
  - 3.18.1.4. Treatment of Acute Retinal Necrosis, Antiviral Agents. Treatment of Associated Retinal Detachment
- 3.18.2. Eye Infection Due to Epstein-Barr Virus
- 3.18.3. Cytomegalovirus Eye Infections
  - 3.18.3.1. Ocular Clinical Features
  - 3.18.3.2. Systemic and Ocular Treatment
  - 3.18.4.3. Complications, Prognosis and Conclusions of Cytomegalovirus Infection

3.19. Rubella Eye Disease. Measles Disease
- 3.19.1. Definition of Measles or Rubella Disease
- 3.19.2. History
- 3.19.3. Congenital Rubella
- 3.19.4. Acquired Rubella
- 3.19.5. Subacute Sclerosis Subacute Panencephalitis
- 3.19.6. Treatment for Ocular Rubella
- 3.19.7. Prognosis and Conclusions

3.20. Presumptive Ocular Histoplasmosis Syndrome
- 3.20.1. Definition
- 3.20.2. History, Mycology and Epidemiology
- 3.20.3. Clinical Features, Disseminated choroiditis, Maculopathy
- 3.20.4. Pathogenesis, Pathophysiology, Immunology
- 3.20.5. Laboratory Diagnostics and Ocular Diagnostics, Imaging Tests
- 3.20.6. Differential Diagnosis
- 3.20.7. Laser Treatment, Corticosteroid Treatment and Other Currently Proposed Treatments
- 3.20.8. Submacular and Subretinal Surgery. Complications
- 3.20.9. Prognosis and Conclusions

3.21. Ocular Candidiasis
- 3.21.1. Definition of Candida Eye Infection
- 3.21.2. History and Epidemiology
- 3.21.3. Clinical Features, Endogenous and Exogenous Candida Endophthalmitis
- 3.21.4. Complications, Pathogenesis, Histopathology and Immunology
- 3.21.5. Diagnosis. Vitreous and Anterior Chamber Aspiration
- 3.21.6. Differential Diagnosis
- 3.21.7. Systemic and Medical Treatment. The Role of Vitrectomy
- 3.21.8. Prognosis and Conclusions

3.22. Ocular Amebiasis
- 3.22.1. Definition of Acanthamoeba and Naegleria Eye Infection
- 3.22.2. History and Microbiology
- 3.22.3. Epidemiology, Pathophysiology
- 3.22.4. Clinical Ocular Disease, Anterior Pole, Uveitis and Late Complications
- 3.22.5. Diagnostics, Confocal Microscopy, Laboratory Diagnostics
- 3.22.6. Histology, Cultures
- 3.22.7. Differential Diagnosis
- 3.22.8. Medical Treatment, The Value of Vitrectomy and Cryotherapy
- 3.22.9. Prevention, Prognosis and Conclusions

A unique, key, and decisive educational experience to boost your professional development"

05

Methodology

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

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

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

At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

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

According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, trying to recreate the real conditions in the physician's professional practice.

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

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

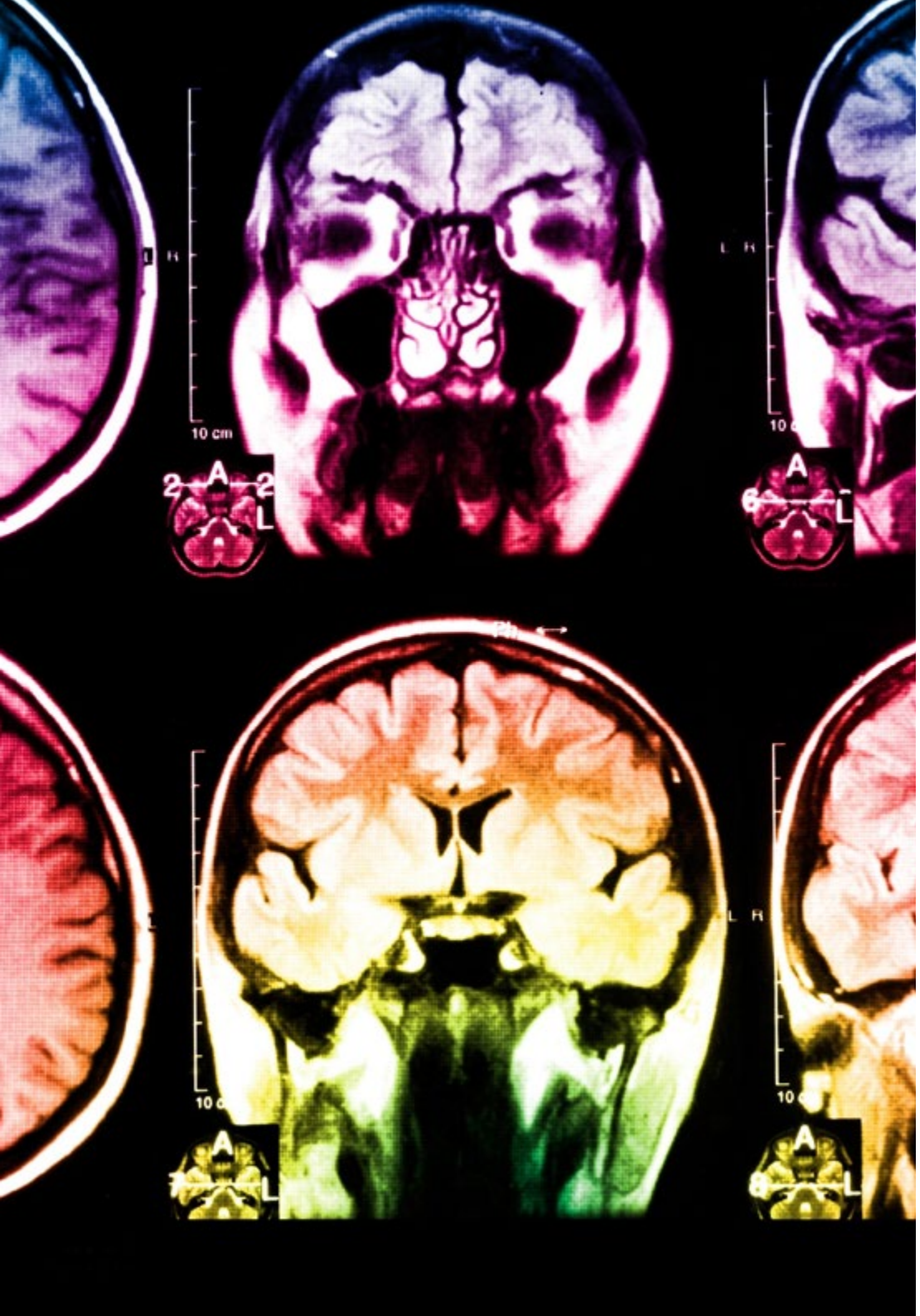
1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.

Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.

Professionals will learn through real cases and by resolving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.



At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

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

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.

This program offers the best educational material, prepared with professionals in mind:

Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.

Surgical Techniques and Procedures on Video

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

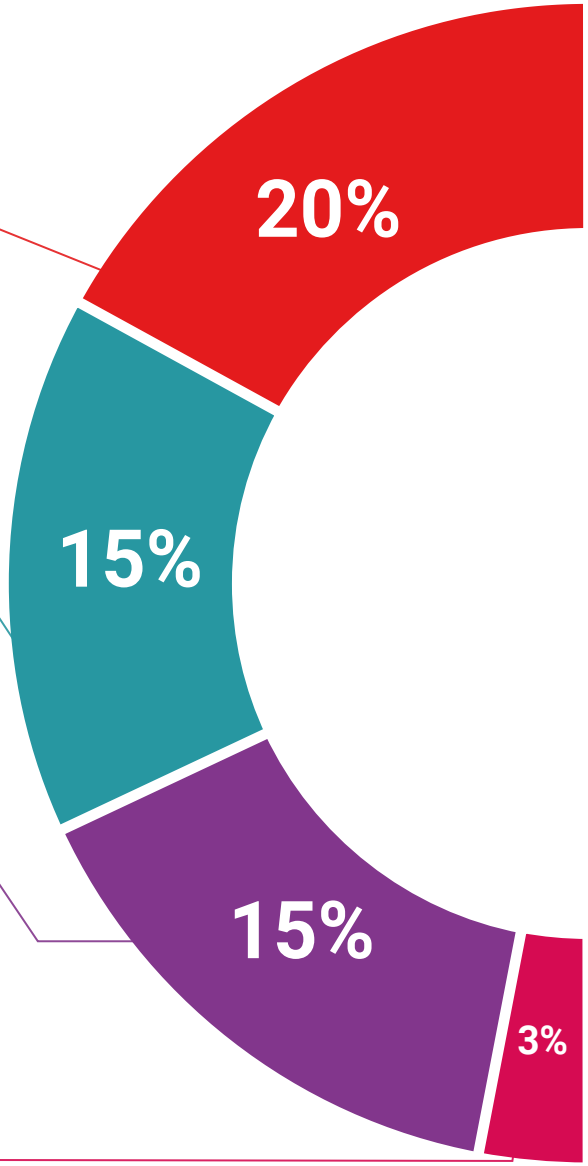
Interactive Summaries

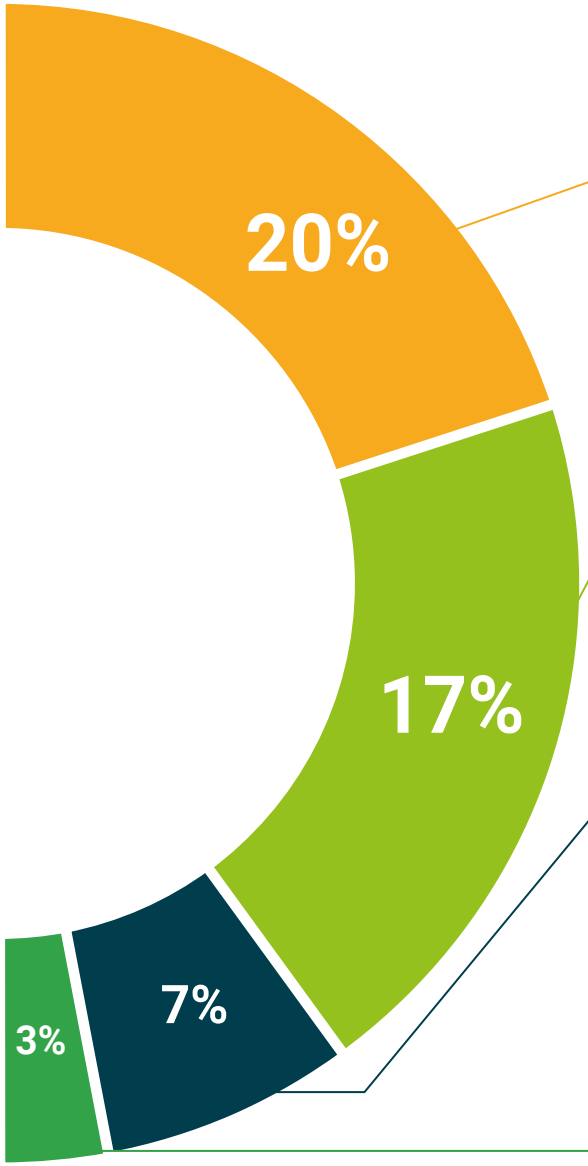
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".

Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.

Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.

Classes

There is scientific evidence on the usefulness of learning by observing experts. The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.

06

Certificate

The Postgraduate Diploma in Pathology and Uveitis of the Macula, Retina and Vitreous guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Global University

Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork"

This program will allow you to obtain your **Postgraduate Diploma in Infectious Pathology and Uveitis of the Macula, Retina and Vitreous** endorsed by **TECH Global University**, the world's largest online university.

TECH Global University is an official European University publicly recognized by the Government of Andorra (***official bulletin***). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

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

Title: **Postgraduate Diploma in Infectious Pathology and Uveitis of the Macula, Retina and Vitreous**

Modality: **online**

Duration: **6 months**

Accreditation: **18 ECTS**


tech global university

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

Postgraduate Diploma in Infectious Pathology and Uveitis of the Macula, Retina and Vitreous

This is a program of 450 hours of duration equivalent to 18 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

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

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

Dr. Pedro Navarro Illana
Rector

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

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

tech global university

Postgraduate Diploma

Infectious Pathology and Uveitis of the Macula, Retina and Vitreous

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

Postgraduate Diploma

Infectious Pathology and Uveitis of the Macula, Retina and Vitreous

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