# FUNDACIÓN | IMO

Autonomous University of Barcelona Postgraduate School Continuing Education in Ophthalmology Programme 2024

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### **Presentation by the Director**

As Director of the Instituto de Microcirugía Ocular (IMO) Grupo Miranza in Barcelona, I am pleased to present this Continuing Education in Ophthalmology Programme. It describes the different masters and postgraduate courses organised by the Autonomous University of Barcelona and the IMO Foundation.

As you know, the field of Ophthalmology has made significant progress in recent years, with the constant appearance of new technologies that perfect diagnostic methods and treatments, whether medical or surgical. Only constant research and continuous medical training can lead us to improve our quality of care.

The Instituto de Microcirugía Ocular (IMO) Grupo Miranza was founded by a group of ophthalmologists in their different specialties who, after several years working together, decided to join forces to achieve greater progress and the highest level of technical equipment in their healthcare activities. The aim of this Continuing Education Programme is to train ophthalmology professionals and graduates in nursing, optics and optometry, with some previous experience, who are interested in updating their knowledge of new technologies and their application in Ophthalmology.

**Dr Borja Corcóstegui** Medical Director

### Master in Orbital and Ophthalmic Plastic Surgery

#### Continuing Education in Ophthalmology Programme

The training will take place onsite, at the Instituto de Microcirugía Ocular (IMO) Grupo Miranza of Barcelona, located at Josep Maria Lladó street, number 3, of Barcelona (Spain).

#### Organized by

IMO Foundation

#### Course objective

This programme is aimed at ophthalmologists with some previous experience and interested in acquiring specialized knowledge in Orbital and Ophthalmic Plastic Surgery.

The selected students will participate in both theoretical and practical aspects of daily practice. They will also have 90 practicums in the Wetlab included in the training programme (additional practicums will have a supplementary charge).

#### Lecturers

Dr Joan Oliveres Dr Rebeca Roses Dr Maravillas Abia

#### ECTS credits

90 ECTS

#### Assessment method

The evaluation of the student will be done on a continuous basis, by means of a rotation established with each of the specialists in the department. Attendance and participation in the drafting, review and/or monitoring of clinical guidelines are compulsory.

#### Start date

10 January 2024

#### End date

22 December 2024

#### Course fees

The registration fee is €10.525 It must be paid by bank transfer. (IBAN: BBVA ES77 0182 4370 80 0201514067 - SWIFT/BIC: BBVAESMM 0182 4370 80 02015140).

- Patient examination in consultation rooms.
- Performance of supplementary tests.
- Assistance in surgeries.
- Emergency care
- Participation in research work.
- Presence and participation in teaching activities.
- Participation in all training sessions offered by Grupo Miranza for its specialists.
- Participation in the preparation and monitoring of clinical guidelines.

#### Conjunctiva and surface pathology:

- Management of conjunctival diseases and chalazion: pterygium, symblepharon, chalazion, ocular rosacea, conjunctival tumours, etc.
- Clinical presentation of palpebral lesions: malignant and benign tumours.

### Introduction to the methodology of Research

- Introduction to the methodology of research
- Drafting of research protocols
- Institutions and documentation for the Presentation of projects research to ethics committees and regulators
- Analysis of results and dissemination

#### Orbitofacial trauma:

- Management of ocular adnexal trauma: general principles, repair of eyelid damage and repair of canthal trauma.
- Study and management of thermal, chemical and radiation burns, including acute management, intermediate treatment and reconstruction of eyelids and appendages, and study of possible complications.
- Orbital and periorbital fractures: imaging studies, facial fractures, lateral orbital fractures, supraorbital fractures, etc.
- Fractures of the orbital floor: study of the clinically relevant structures, diagnosis, associated damage, etc.

#### Eyelid malpositions:

- Management of: entropion, ectropion, trichiasis, distichiasis, ptosis, lagophthalmos and retraction, tissue loss, etc.
- Study and surgery of eyebrow ptosis and blepharoplasty: assessment, correction surgery, blepharoplasty techniques, etc.
- Study and management of entropion and trichiasis: classification, principles of surgical correction, treatment, etc.
- Classification and correction of ectropion: mechanical, cicatricial, atonic, in anophthalmic cavity, etc.
- Classification of palpebral ptosis: classification and preoperative assessment, principles of surgical correction, etc.
- Management of eyelid retraction surgery in patients with Graves' disease and other causes of eyelid retraction.
- Study and current techniques for the treatment of blepharospasm and related conditions.
- Treatment and surgical techniques, etc.
- Diagnosis and management of facial paralysis: differential diagnoses, clinical examination, etc.

#### Eyelid reconstruction:

- Surgical reconstruction of partial and total lower and upper eyelid defects.
- Reconstruction of canthal defects: medial canthus, lateral canthus and late reconstruction of canthal defects.
- Alternative treatments for periocular neoplasms, chemotherapy, cryotherapy, etc.

#### Orbital Surgery:

- Evaluation and spectrum of orbital diseases.
- Exploration and surgical study of the orbit.
- Optic nerve sheath decompression techniques.
- Craniofacial and periorbital surgery.

- Enucleation surgery, evisceration and study of orbital implants.
- Treatment of complications.
- Exanteration surgery: indications, surgical techniques, etc.
- Management of anophthalmic cavity deformities including enophthalmos and contraction.
- Care and management of ocular prostheses.

#### Lacrimal system:

- Evaluation of the lacrimal system and clinical diagnosis.
- Evaluation of the drainage of the lacrimal system, lacrimal irrigation, different tests used for

diagnosis and diagnostic imaging techniques.

- Tear problems in paediatrics: diagnosis, treatment, etc.
- Surgery of the lacrimal system: techniques and results. Dacryocystorhinostomy techniques, treatment of canalicular anomalies, surgery for congenital obstruction of the lacrimal-nasal duct.
- Evaluación del sistema lacrimal y diagnóstico clínico.

### **Master in Cornea and Refractive Surgery**

#### Continuing Education in Ophthalmology Programme

The training will take place onsite, at the Instituto de Microcirugía Ocular (IMO) Grupo Miranza of Barcelona, located at Josep Maria Lladó street, number 3, of Barcelona (Spain).

#### Organized by

IMO Foundation

#### Course objective

This programme is aimed at ophthalmologists with some previous experience and interested in acquiring specialized knowledge in Cornea and Refractive Surgery.

The selected students will participate in both theoretical and practical aspects of daily practice. They will also have 90 practicums in the Wetlab included in the training programme (additional practicums will have a supplementary charge).

#### Lecturers

Dr Jorge Cazal Dr Daniel Elies Dr Oscar Gris Dr José L. Güell Dr Felicidad Manero

#### ECTS credits

90 ECTS

#### Assessment method

The evaluation of the student will be done on a continuous basis, by means of a rotation established with each of the specialists in the department. Attendance and participation in the drafting, review and/or monitoring of clinical guidelines are compulsory.

#### Start date

10 January 2024

#### End date

22 December 2024

#### Course fees

The registration fee is €10.525. It must be paid by bank transfer. (IBAN: BBVA ES77 0182 4370 80 0201514067 - SWIFT/BIC: BBVAESMM 0182 4370 80 02015140).

- Patient examination in consultation rooms.
- Performance of supplementary tests.
- Assistance in surgeries.
- Emergency care
- Participation in research work.
- Presence and participation in teaching activities.
- Participation in all training sessions offered by Grupo Miranza for its specialists.
- Participation in the preparation and monitoring of clinical guidelines.

### Introduction to the methodology of Research

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#### Cornea:

- Basic sciences.
- Physiology, morphology and pathological response, immunology, microbiology, cell culture, complementary examinations (impression cytology, specular microscopy, anterior OCT, ORA, pachymetry, topography, etc.).
- Quality of vision OQAS
- Tear assessment test

# Cornea, clinical aspects. Ocular surface surgery:

- Clinical aspects: infectious diseases, immunological diseases, corneal manifestations of systemic and nutritional diseases, dystrophies and degenerations, congenital and metabolic diseases, oncology.
- Corneal trauma: diagnosis, monitoring and treatment.
- Surgical techniques: indications, complications and results.
- Conjunctival surgery.

- Sclerocorneal limbus surgery.
- Corneal surgery: lamellar and penetrating keratoplasty, endothelial keratoplasty, corneal cross-linking, amniotic membrane transplant.
- Related palpebral surgery.
- Femtosecond laser-assisted corneal surgery.

#### Dry eye:

- Assessment and treatment methods: clinical aspects.
- Diagnostic methods (Schimer test, Rose Bengal/Lysamine Green and Osmorality test).
- Topical medical treatment and oral medical treatment.
- Surgical procedures.

#### Refractive surgery:

- Assessment methods: basic principles: refraction (objective, automatic subjective).
- Corneal topography methods (projection and elevation), pachymetry, confocal microscopy, optical quality assessment methods (OQCAS, wavefront, OCT, other methods).
- Visual acuity, age, pachymetry, topography, aberrometry, pupillometry, refraction.

#### Corneal Refractive Surgery:

- Basic principles and surgical techniques: corneal refractive surgery: corneal biomechanics, morphological response, laser technology applied to the cornea.
- Incisional surgery (astigmatism), lamellar surgery (LASIK), PRK, intracorneal rings, intracorneal lenses.
- Indications and results.

#### Intraocular Refractive Surgery:

- Basic principles: refraction (objective, automatic subjective).
- Corneal topography methods (projection and elevation), pachymetry, confocal microscopy, optical quality assessment methods

(OQAS, wavefront, OCT and other Ocular Surface Tumours: methods).

- Surgical techniques: o Crystalline lens surgery o Indications and results
- Crystalline lens surgery, phakic anterior and posterior chamber lenses
- Indications and results.

- Methods of diagnosis, follow-up and medical and surgical treatment.
- Indications and results.
- Histochemical and other non-invasive assessment tests.

### **Master in Strabismus and Paediatric Ophthalmology**

#### Continuing Education in Ophthalmology Programme

The training will take place onsite, at the Instituto de Microcirugía Ocular (IMO) Grupo Miranza of Barcelona, located at Josep Maria Lladó street, number 3, of Barcelona (Spain).

#### Organized by

IMO Foundation

#### Course objective

This programme is aimed at ophthalmologists with some previous experience and interested in acquiring specialized knowledge in Strabismus and Paediatric Ophthalmology.

The selected students will participate in both theoretical and practical aspects of daily practice. They will also have 90 practicums in the Wetlab included in the training programme (additional practicums will have a supplementary charge).

#### Lecturers

Dr Josep Visa Dr Ana Wert Dr Charlotte Wolley-Dod

#### ECTS credits

90 ECTS

#### Assessment method

The evaluation of the student will be done on a continuous basis, by means of a rotation established with each of the specialists in the department. Attendance and participation in the drafting, review and/or monitoring of clinical guidelines are compulsory.

#### Start date

10 January 2024

#### End date

22 December 2024

#### Course fees

The registration fee is €10.525. It must be paid by bank transfer. (IBAN: BBVA ES77 0182 4370 80 0201514067 - SWIFT/BIC: BBVAESMM 0182 4370 80 02015140).

- Patient examination in consultation rooms.
- Performance of supplementary tests.
- Assistance in surgeries.
- Emergency care
- Participation in research work.
- Presence and participation in teaching activities.
- Participation in all training sessions offered by Grupo Miranza for its specialists.
- Participation in the preparation and monitoring of clinical guidelines.

#### Strabismus:

- Fundamentals in strabology: Anatomy of the extraocular and orbital musculature.
- Organisation of the oculomotor system.
- Concept of diplopia.
- Visual direction.
- Confusion.
- Sensory adaptations.
- Motor value.
- Fusion and fusion amplitude.
- Clinical history.
- Objective examination and subjective examination.

#### Childhood strabismus:

- Examination.
- Diagnosis and management of the patient with strabismus in the paediatric age group.
- Endotropias.
- Exotropia.
- Alphabetic syndromes.
- Oblique muscle hyperaction.
- Cranial nerve palsies.

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#### Strabismus in adults:

- Surgery for childhood-onset strabismus in adulthood.
- Strabismus due to sensory causes: management and surgery.
- Strabismus secondary to ocular surgery: strabismus secondary to retinal surgery with special attention to retinal detachment surgery.
- Strabismus secondary to cataract surgery.
- Strabismus secondary to refractive surgery.
- Risk assessment of diplopia and/or oculomotor deviation in patients undergoing refractive surgery.
- Strabismus secondary to orbital surgery.
- Strabismus secondary to glaucoma surgery.
- Strabismus secondary to ocular surface surgery.

#### Paediatric neuro-ophthalmology:

• Attitude towards the erased papilla in the child, cranial nerve palsies.

#### Diplopia:

- Pathophysiological basis of diplopia.
- Examination of the patient with diplopia.
- Clinical history.
- Aetiological diagnosis and clinical attitude.
- Prismotherapy.
- Surgical management.

#### Paediatric Ophthalmology:

- Early detection of diseases and comprehensive management of paediatric patients with ophthalmological pathology.
- Amblyopia: concept, physiopathological bases and classification.
- Refraction technique and prescription of glasses, prescription of occlusion therapy, evolution and follow-up.
- Embryonic developmental anomalies: congenital cataract: classification, associated anomalies, clinical and surgical management, when and how to

operate, surgical approach and techniques.

- Visual rehabilitation and follow-up.
- Microphthalmia.
- Coloboma.
- Anterior segment dysgenesis.

# Retinal pathology in the paediatric age group:

• Clinical management and therapeutic approach to different pathologies: retinal detachment in the paediatric age group, retinopathy of prematurity, retinal dysplasias and dystrophies, persistent hyperplastic primary vitreous.

#### Eyelid and lacrimal duct disorders:

- Differential diagnosis of epiphora in children.
- Management of lacrimal duct obstruction.
- Classification and management of congenital ptosis.

# Ocular pathology associated with systemic disease:

• Ophthalmological involvement in different systemic diseases.

### **Master in Glaucoma**

#### Continuing Education in Ophthalmology Programme

The training will take place onsite, at the Instituto de Microcirugía Ocular (IMO) Grupo Miranza of Barcelona, located at Josep Maria Lladó street, number 3, of Barcelona (Spain).

#### Organized by

IMO Foundation

#### Course objective

This programme is aimed at ophthalmologists with some previous experience and interested in acquiring specialized knowledge in Glaucoma.

The selected students will participate in both theoretical and practical aspects of daily practice. They will also have 90 practicums in the Wetlab included in the training programme (additional practicums will have a supplementary charge).

#### Lecturers

Dr Elena Arrondo Dr Natalino Giuliano Dr Maribel Acuña

#### ECTS credits

90 ECTS

#### Assessment method

The evaluation of the student will be done on a continuous basis, by means of a rotation established with each of the specialists in the department. Attendance and participation in the drafting, review and/or monitoring of clinical guidelines are compulsory.

#### Start date

10 January 2024

End date

22 December 2024

#### Course fees

The registration fee is €10,525. It must be paid by bank transfer. (IBAN: BBVA ES77 0182 4370 80 0201514067 - SWIFT/BIC: BBVAESMM 0182 4370 80 02015140).

- Patient examination in consultation rooms.
- Performance of supplementary tests.
- Assistance in surgeries.
- Emergency care
- Participation in research work.
- Presence and participation in teaching activities.
- Participation in all training sessions offered by Grupo Miranza for its specialists.
- Participation in the preparation and monitoring of clinical guidelines.

#### Anatomy and Pathophysiology of Glaucoma:

- Anatomy of the irido-corneal angle and aqueous humour drainage pathways.
- Anatomy of the ciliary body.
- Anatomy of the optic nerve.
- Aqueous physiology.
- Pathogenetic mechanisms of congenital glaucoma.
- Pathogenetic mechanisms of primary open angle glaucoma.
- Pathogenetic mechanisms of primary angle-closure glaucoma.
- Pathogenetic mechanisms of secondary glaucoma.

#### Primary glaucoma:

- Epidemiology and risk factors.
- Clinical features of congenital glaucoma.
- Clinical features of primary open-angle glaucoma.
- Clinical features of primary angle-closure glaucoma.
- Clinical features of normotensional glaucoma.

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#### Secondary glaucoma:

- Aetiopathology and classification.
- Clinical pictures of secondary open-angle glaucomas (acute and chronic).
- Clinical pictures of secondary angle-closure glaucomas (acute and chronic).

#### Diagnostic techniques:

- Biomicroscopy of the anterior segment.
- Biomicroscopy of the posterior segment.
- Biomicroscopy of the optic papilla.
- Direct, indirect and dynamic gonioscopy.
- Direct and indirect ophthalmoscopy of the optic papilla.
- Campimetry: white/white perimetry, blue/yellow perimetry, full threshold perimetry and perimetry with fast techniques.
- Analysis of retinal nerve fibres and papilla: HRT, GDx, OCT.
- Pachymetry and ultrasonic biomicroscopy.
- Ocular Response Analyser (ORA).

#### Medical Treatment:

- Ocular hypotensive drugs: aqueous production inhibitors and aqueous deflux enhancers.
- Mechanisms of action and adverse effects of different drugs.
- Monotherapies and fixed combinations.

#### Laser treatments:

- Laser types: argon laser, diode laser, Nd: YAG laser
- Treatments: Peripheral iridotomy with Nd: YAG laser, peripheral iridoplasty and trabeculoplasty with argon or diode laser.
- Suturolysis with argon laser and goniopuncture with Nd: YAG laser.

• Cyclophotocoagulation and endocyclophotocoagulation with diode laser.

#### Surgical Treatment:

- Perforating filtering surgery: Trabeculectomy.
- Non-perforating filtering surgery: deep sclerectomy.
- Drainage implants: Ahmed valve, and Molteno drainage device.
- Antimetabolites: 5FU and mitomycin C.

### **Master in Anterior Segment**

#### Continuing Education in Ophthalmology Programme

The training will take place onsite, at the Instituto de Microcirugía Ocular (IMO) Grupo Miranza of Barcelona, located at Josep Maria Lladó street, number 3, of Barcelona (Spain).

#### Organized by

IMO Foundation

#### Course objective

This programme is aimed at ophthalmologists with some previous experience and interested in acquiring specialized knowledge in Anterior Segment.

The selected students will participate in both theoretical and practical aspects of daily practice. They will also have 90 practicums in the Wetlab included in the training programme (additional practicums will have a supplementary charge).

#### Lecturers

Dr Elena Arrondo Dr Daniel Elies Dr Natalino Giuliano Dr Oscar Gris Dr José L. Güell Dr Maribel Acuña

#### ECTS credits

90 ECTS

#### Assessment method

The evaluation of the student will be done on a continuous basis, by means of a rotation established with each of the specialists in the department. Attendance and participation in the drafting, review and/or monitoring of clinical guidelines are compulsory.

#### Start date

10 January 2024

#### End date

22 December 2024

#### Course fees

The registration fee is €10.525. It must be paid by bank transfer. (IBAN: BBVA ES77 0182 4370 80 0201514067 - SWIFT/BIC: BBVAESMM 0182 4370 80 02015140).

- Patient examination in consultation rooms.
- Performance of supplementary tests.
- Assistance in surgeries.
- Emergency care
- Participation in research work.
- Presence and participation in teaching activities.
- Participation in all training sessions offered by Grupo Miranza for its specialists.
- Participation in the preparation and monitoring of clinical guidelines.

#### Cornea:

- Diagnostic methods.
- Basic tests for the examination of corneal pathologies.
- Clinical cases: presentation and assessment, treatment schemes.
- Refractive surgery, Lasik, phakic lenses, intracorneal procedures.
- Indications and contraindications.
- Early and late postoperative complications of refractive surgery.
- Lamellar and/or penetrating keratoplasty.
- Keratoprosthesis.
- Limbal surgery.
- Types of transplants.
- Outpatient consultation.
- Collection of documentation for research and publications.

#### Crystalline lens:

- Opacities and malformations.
- Artificial implants.
- Basic tests for the diagnosis and treatment of cataract: biometry, contrast sensitivity.
- Macular function tests.
- Topography.
- Biometry in special situations.
- Clinical cases: presentation and assessment.
- Intraocular lenses: surgical techniques.
- Phacoemulsification technique.
- Cataract surgery in special cases: diabetic retinopathy, indications and contraindications.

• Femtosecond laser assisted surgery.

#### Glaucoma:

- General concepts: glaucomatous optic neuropathy.
- Anatomy and physiology of the cameral angle, ciliary body, dynamics and aqueous humour elimination pathways.
- Intraocular pressure, method of quantification.
- Intraocular pressure and glaucoma.
- Diagnosis of glaucoma: early detection. Basic tests for glaucoma detection: visual fields.
- Technique and interpretation.
- Other diagnostic and follow-up methods.
- Pharmacology: agents, pharmacodynamics, side effects.
- Combinations.
- General principles of treatment.
- Surgical treatment.
- Perforating techniques.
- Non-perforating techniques.
- Clinical cases: presentation and assessment.
- Other non-surgical treatments for glaucoma.
- Outpatient consultation.
- Collection of documentation for research and publications.

### Introduction to the methodology of Research

- Introduction to the methodology of research
- Drafting of research protocols
- Institutions and documentation for the Presentation of projects research to ethics committees and regulators
- Analysis of results and dissemination

### **Master in Vitreous / Retina**

#### Continuing Education in Ophthalmology Programme

The training will take place onsite, at the Instituto de Microcirugía Ocular (IMO) Grupo Miranza of Barcelona, located at Josep Maria Lladó street, number 3, of Barcelona (Spain).

#### Organized by

IMO Foundation

#### Course objective

This programme is aimed at ophthalmologists with some previous experience and interested in acquiring specialized knowledge in Vitreous / Retina.

The selected students will participate in both theoretical and practical aspects of daily practice. They will also have 90 practicums in the Wetlab included in the training programme (additional practicums will have a supplementary charge).

#### Lecturers

Dr Anniken Burés Dr Borja Corcóstegui Dr José García-Arumí Dr Carlos Mateo Dr Rafael Navarro Dr Cecilia Salinas

#### ECTS credits

90 ECTS

#### Assessment method

The evaluation of the student will be done on a continuous basis, by means of a rotation established with each of the specialists in the department. Attendance and participation in the drafting, review and/or monitoring of clinical guidelines are compulsory.

#### Start date

10 January 2024

End date 22 December 2024

#### Course fees

The registration fee is  $\in$  10,525. It must be paid by bank transfer.

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(IBAN: BBVA ES77 0182 4370 80 0201514067 - SWIFT/BIC: BBVAESMM 0182 4370 80 02015140).

- Patient examination in consultation rooms.
- Performance of supplementary tests.
- Assistance in surgeries.
- Emergency care
- Participation in research work.
- Presence and participation in teaching activities.
- Participation in all training sessions offered by Grupo Miranza for its specialists.
- Participation in the preparation and monitoring of clinical guidelines.

#### Retinal detachment in its various forms

- Reghmatogenous and secondary.
- Clinical study, differential diagnosis and treatment.
- Assessment of the patient in the consultation room and surgical treatment.
- Complementary tests for a better understanding of retinal detachment: biomicroscopy, uni and twodimensional b-mode ultrasound examination, panoramic photography of the back of the eye and optical coherence tomography.

# Introduction to the methodology of Research

- Introduction to the methodology of research
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#### Retinal vascular disorders

- Diabetic retinopathy will be covered in detail both in its diagnosis with angiography and tomography as well as the intraretinal and proliferative forms.
- Surgical indications and their treatment with photocoagulation or vitrectomy.
- Ongoing trials for the treatment of this disease.

- Study and collection of documentation and participation in clinical trials.
- Other retinal vasculopathies will be studied such as central and branch vein obstruction and new treatments.

#### Macular disorders

- Degeneration of the macula, assessment of its different forms by fluorescein angiography, indocyanine green angiography and other methods.
- Treatments using thermal photocoagulation, transpupillary thermotherapy, photodynamic therapy and macular translocation.
- Treatments using intravitreal anti-VEGF.
- Macular hole.
- Accurate re-assessment of its diagnosis with OCT and other methods.
- Macular hole surgery.
- Macular epiretinal membrane and internal limiting membrane dissection, indications and technique.

#### Intraocular tumours

- Particular attention is paid to melanoma, its diagnostic and therapeutic aspects
- Different treatments will be demonstrated in practice using new photocoagulation techniques, plaque radiotherapy and tumour resections.
- Participation in multi-centre studies and pilot studies on different types of tumours.

#### Intraocular inflammations

- Posterior uveitis, its classification, medical and surgical treatment.
- Study of patients with chronic inflammation and new trials in progress with intraocular devices to control inflammation.
- Indications for surgery in inflammatory processes.

#### Retinal dystrophies

- Diagnosis and differential diagnosis.
- The role of ocular electrophysiology in fundus pathology today.
- Current genetic studies.

### Master in Ophthalmic Surgery Nursing

#### Continuing Education in Ophthalmology Programme

The clinical practice will take place at the Instituto de Microcirugía Ocular (IMO) Grupo Miranza of Barcelona, located at Josep Maria Lladó street, number 3, of Barcelona (Spain).

#### Organized by

IMO Foundation

#### Course objective

This programme is aimed at Diploma graduates/Qualified in Nursing, with some previous experience and interest in incorporating and updating knowledge related to new technologies and their application in surgical ophthalmology.

#### Lecturers

Coordinator: Marta Oller Mrs Nuria Durán Mrs Mónica Guardia Mrs Verónica Guiu Mrs Noemí Martínez Mrs Ana Molina Mrs Mar Palomares

#### ECTS credits

60 ECTS

#### Assessment method

The evaluation of the student will be done on a continuous basis and with the presentation of a final postgraduate work. Attendance and the final project are compulsory.

#### Start date

10 January 2024

#### End date

22 December 2024

#### Course fees

The registration fee is  $\notin$  6.000. It must be paid by bank transfer. (IBAN: BBVA ES77 0182 4370 80 0201514067 - SWIFT/BIC: BBVAESMM 0182 4370 80 02015140).

- Ocular anatomy and physiology: anterior pole, posterior pole, ocular appendages and optic pathways.
- Most prevalent ocular pathology: anterior pole, posterior pole and ocular appendages.
- Most commonly used drugs in ophthalmology.
  - o Preparation and specific concentrations. o Routes of administration.
- Laser in ophthalmological surgery. o Safety measures.

#### Nursing care in the clinical area.Evaluation of the patient in the ophthalmological consultation.Tests Complements for ocular diagnosis:

- History in an ophthalmological patient and recording of the data that are collected to the clinical history with a diagnostic objective. Informed consent.
- Types of complementary tests in ophthalmology.

# Instrumentation and nursing collaboration in ophthalmic surgery:

- Most frequent surgical techniques that are developed to the posterior segment posterior eye and how to prepare the necessary material for these procedures.
- Retinal detachment with or without scleral procedure, hemorrhage, vitreous and laser treatments, eye trauma, Oculars tumors and intraocular pressure management during the operation; basic instruments; Bufferers and How to prepare them.

# Photograph of the anterior segment with Slit lamp:

- Features of photographic crack light
- Accessories, lighting techniques and indications, protocols according to pathologies, angle photography.

#### Nursing care in the surgical area -Instrumentation and anterior segment Surgeries Collaboration:

- Know the surgical techniques more frequent that develop on anterior segment of the eye and prepare the necessary material by these procedures; Falls with phacoemulsification, technique extracapsular, Femto laser, type of Viscoelastic; basic instruments
- Deep nonpenetrating sclerectomy, implant of valve, cyclophotocoagulation with Laser, basic instruments
- LASIK, FEMTO and equipment for refractive surgery, basic instruments;
- Corneal transplant and all its variants, basic instruments.

# Nursing care in the surgical area: - Laser in ophthalmology

- Different types of lasers for Ophthalmological use, security measures for the patient and personnel healthcare.
- Management and cure of the different ophthalmology equipment, both, Anterior segment and posterior segment
- Type of intraocular lenses, handling and basic instruments.
- Type of implants in glaucoma and preparation thereof, Basic instruments.
- Type of implants in Retinal surgery and preparation of them, basic instruments.
- Type of implants in oculoplastic surgery, preparation and Basic instruments

#### Nursing care in the area Surgical: -Instrumentation and Collaboration in eyelid surgeries and ocular appendages

- Most frequent surgical techniques that develop to the eyelids, lacrimal apparatus, orbit and extraocular musculature; Technique of correction of eyelid ptosis and its variants, basical instrumentation; Blepharoplasty with and without laser, basic instruments and patient cures.
- Orbital tumors, basic instruments and management in the assembly of

engines Dacryocystorhinostomy, tear reconstructions, Basic instruments and management of the endoscopy equipment; Eviscerations and enucleations, Basic instruments

 Resection and reversal of rectifs, transposition of muscles, surgeries of the oblique muscle, basic instrumental.

# Fundus photography and optical coherence tomography:

- Retinograph, features, color retinography, autophooresceinic retinography, fluorescein and fluorescein angiography Indocyanine green, retinography Stereoscopic and panoramic
- Adverse effects of contrasts, Indications and protocols according to Pathologies
- Anterior segment OCT, high resolution posterior segment OCT.
- Ultrasound techniques: o Ultrasonic Biomicroscope. o Ultrasound B Posterior segment
- Information. Preparation of the Patient. Possible complications. Prevention. post-technical cures. Angiographic. Recommendations.

#### Nursing care in the area clinical: Invasive acts:

- Know how to realize the Preparation of a patient undergoing invasive treatment in consultation area.
- Type of intravitreal injections, Basic instruments.
- Types of oculofacial aesthetics treatments, preparation and cure of the patient during the technique, basic instruments.
- Type of treatments for dry eye, preparation and cure of the patient, basic instruments.

# Introduction to the methodology of Research

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# Master in Clinical Optometry and imaging techniques in ophthalmology

#### Continuing Education in Ophthalmology Programme

The course consists of 2 periods: 3-4 months of clinical practice at the centre, and a period of elaboration of the postgraduate final project. The clinical practice will take place at the Instituto de Microcirugía Ocular (IMO) Grupo Miranza of Barcelona, located at Josep Maria Lladó street, number 3, of Barcelona (Spain).

#### Organized by

IMO Foundation

#### Course objective

This course is aimed at Diploma Graduates / Graduates in Optics and Optometry, Diploma Graduates/Graduates in Nursing and Graduates in Medicine, with some previous experience and an interest in updating their knowledge of new technology and its application in ophthalmology.

#### Lecturers

Coordinator: Mrs Silvia Funes Avila Mrs Paulina Hernández Mr Alfons T. Margalef Mr David Pesantes Mr Álvaro Terroba Mrs Anna Vaquero

#### ECTS credits

60 ECTS

#### Assessment method

The evaluation of the student will be done on a continuous basis and with the presentation of a final postgraduate work. Attendance and the final project are compulsory.

#### Start date

10 January 2024

#### End date

22 December 2024

#### Course fees

The registration fee is € 6.000. It must be paid by bank transfer. (IBAN: BBVA ES77 0182 4370 80 0201514067 - SWIFT/BIC: BBVAESMM 0182 4370 80 02015140).

- Ocular anatomy and physiology: anterior pole, ocular appendages, posterior pole and optic pathways.
- Ocular pathology: most prevalent pathologies of the anterior pole, ocular appendages, posterior pole.
- Surgery in Ophthalmology: o Indications.
   o Previous tests.
- Surgery on: eyelids, lacrimal apparatus, orbit, cornea, crystalline lens and retina.
- Types of lasers in ophthalmology.
- Safety measures.
- Most commonly used drugs in ophthalmology: o Types. Indications. o Routes of administration.

#### Medical history and basic examinations:

- Anamnesis.
- Visual acuity.
- Tonometry.
- Refraction.
- Corneal biomicroscopy
- Evaluation of the anterior camera
- Pupillary reflexes
- Binocular vision assessment:
  o Cover-Test, Ocular Motility, Fusion, Stereopsis

#### Contactology

- Adaptation of contact lenses in irregular corneas (keratoconus, ectasia,keratoplasties, etc).
- Special adaptations (Contact lenses)

#### Low vision:

- Low vision: features and classification. Different therapies in patients: Indications and tests by Visual rehabilitation, aids visual (magnifying glasses, filters), acuity visual.
- Evaluation of specific visual acuity due to low vision (different types of tests).

Practical optometry and vision therapy.External eye photography:

- Pediatric optometry. Differences of the pediatric patient. Protocols and treatments.
- Vision therapy of different types of pediatric patient and visual training.

#### Anterior segment slit-lamp photography:

- Characteristics of the photographic slit lamp.
- Accessories, illumination techniques and indications, protocols according to pathology, angle photography.
- Evaluation of vision in the pediatric population with specific tests and tests. Introduction to vision therapy (visual training practices).

#### Surgery in ophthalmology:

- Indications and previous tests. Type of laser in ophthalmology. Type of surgery for each specialty.
  - Type, indications and ways of administration.

### Introduction to the methodology of Research

- Introduction to the methodology of research
- Drafting of research protocols
- Institutions and documentation for the Presentation of projects research to ethics committees and regulators
- Analysis of results and dissemination

# Refractive Surgery: Complementary and preoperative Tests:

- LASIK technique, FEMTO and management of refractive surgery equipment, basic instruments.
- Biometrics, topography, endothelial count, tear tests, Lancaster test, Video oculograph

#### External photograph of the eye:

- Basic concepts in photography and protocols according to pathologies.
- Types of cameras

# Photograph of the anterior segment with slit lamp:

- Features of photographic crack light
- Accessories, lighting techniques and indications, protocols according to pathologies, angle photography

# Fundus photography and Optical coherence tomography:

- Fundus photography, characteristics, colour fundus photography, fundus autofluorescence photography, fluorescein angiography and with indocyanine green, stereoscopic and panoramic fundus photography, adverse effects of contrast, indications and protocols according to disorder.
- Anterior segment OCT, high resolution posterior segment OCT.
- HRT.
- Ultrasound techniques: o Ultrasonic Biomicroscope. o Ultrasound B Posterior segment.

### **General information and Registration**

To access any of the **Master's programmes**, the attached application form must be sent in digital format, together with the documentation detailed below, to the attention of Mrs Gemma Luaña, Secretary of the Teaching Committee, **before 15 June 2023**.

- Certified photocopy of a valid DNI or NIE (identity card).
- Detailed and up-to-date curriculum vitae, including a recent photograph.
- Degree in Medicine and Surgery, legalised and officially attested.
- Official legalised and certified Ophthalmology Specialist qualification.
- Academic Certificate of origin of both qualifications
- Certificate of English. For foreign students, accreditation of proficiency level in Spanish.

For those candidates who wish to undertake paid on-call duty at the centre during the master's degree, the following documentation is required, in addition to that indicated above:

- Certified photocopy of the degree in Medicine and Specialist in Ophthalmology, approved by the Spanish Ministry of Education and Professional Training.
- Certified copy of full membership to the Barcelona Physicians Association
- Proof of origin of both qualifications (Medicine and Surgery, and Ophthalmology).
- Valid work permit for the period of the course.
- For foreign students, accreditation of proficiency level in Spanish.

In the case of foreign degrees, it is necessary to have the degree homologated or to have the Hague Apostille (for those countries that have signed the international agreement).

Once this documentation has been received, the Teaching Committee will evaluate the candidatures and the acceptance or denial of them will be communicated in writing. At that time, the teaching secretary must be provided with a certified copy of all the aforementioned documentation. This documentation will not be returned.

Once the candidates have been admitted to the **Master's and Postgraduate** courses, they must pay the **enrolment fee** for the course from 25 October to 8 November 2023, by bank transfer (IBAN: BBVA ES77 0182 4370 80 0201514067 / SWIFT-BIC: BBVAESMM 0182 4370 80 02015140), for the amount indicated for each course.

### **Admission Application**

#### Master's in:

Orbital and Ophthalmic Plastic Surgery

- Cornea and Refractive Surgery
- Strabismus and Paediatric Ophthalmology
- Glaucoma

Anterior Segment

- Vitreous / Retina
- Ophthalmic Surgery Nursing

Clinical Optometry and imaging techniques in ophthalmology Clinical

Mark your preferences and fill in your personal details and the documentation required for admission. Send in digital format via e-mail to: educacion@fundacionimo.org

For any further information, please contact us by phone (+34) 934 000 700

Name and surnames

Postal address

Locality	Country	Postal Code
Phone number	Mobile phone number	Email

We inform you that the personal data provided will be processed by the Fundació de Recerca del l'Institut de Microcirurgia Ocular (IMO Foundation) with NIF number G65299950 located at C / Josep Maria Lladó, 3, 08035, Barcelona, Spain, Tel. 93 400 07 00 and email info@fundacionimo.org. You can contact the data protection officer by e-mail at <u>dpd.rgpd@fundacionimo.org</u>.

Your personal data will be processed for the purpose of carrying out the necessary administrative procedures, such as enrolment, monitoring and
verification of compliance with the conditions established for the development of the proposed training activity. If you do not provide the data
contained in the form, we will not be able to process your application. If you give your consent, you will be kept informed of other activities,
products and services offered by Instituto de Microcirugía Ocular Dos, S.L.U. and the Fundació de Recerca de l'Institut de Mircrocirurcía Ocular (IMO
Foundation). The legal basis for the processing is the execution of pre-contractual and contractual measures, as well as the express consent for the
sending of information relating to our activities.

The personal data provided will be kept for the time necessary to comply with legal and contractual obligations in accordance with current legislation. The legal basis for sending communications is your express consent. The legal basis for the use of your image is your express consent. The data will be communicated to Instituto de Microcirugia Ocular DOS S.L.U. (IMO Dos) located at C / Josep Maria Lladó 3, 08035, Barcelona, Spain, Tel. 93 400 07 00 and email address informacion@imo.es. You may contact the Data Protection Officer by email at dpd.rgn@imo.es.

You are informed that you may exercise your rights of access, rectification, deletion, limitation, portability, opposition, withdrawal of the consent you have given and not to be subject to automated individual decision-making. You can obtain more information about your rights on the website of the Spanish Data Protection Agency, as well as file a complaint with this body if you consider it appropriate. Likewise, in accordance with the provisions of the right to image, recognised in article 18.1 of the Spanish Constitution and regulated by Organic Law 1/1982, of 5 May, on the right to honour, personal and family privacy and one's own image. We inform you that the Organisation processes and disseminates these images in different media and applications for the aforementioned purposes.

I hereby authorize IMO and the IMO Foundation to communicate with me by any means in order to provide me with news about other activities, products and services offered by IMO Dos and the IMO Foundation.

Name and surnames

Date

Signature

### **IMO Grupo Miranza Teaching Staff**

Maravilla Abia Oculoplastics Department Aesthetics and Oculofacial Rejuvenation Department

Maribel Acuña Glaucoma Department

**Elena Arrondo** Glaucoma Department

Anniken Bures Vitreous / Retina Department Head of teaching department

Neus Calvet Optometry and Refraction Department Low Vision Department

**Carol Camino** Optometry and Refraction Department Low Vision Department

Mireia Campos Optometry and Refraction Department

Jorge Cazal Cornea and Refractive Surgery Department

**Borja Corcóstegui** Vitreous / Retina Department

Nuria Durán Surgical Nursing Department

Daniel Elíes Cornea and Refractive Surgery Department

Marta Farré Optometry and Refraction Department

Silvia Funes Optometry and Refraction Department

José García-Arumí Professor of Ophthalmology at the Autonomous University of Barcelona Vitreous / Retina Department

**Claudia Garrido** Optometry and Refraction Department

Natalino Giuliano Glaucoma Department

**Laura González** I+D

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**Anna Vaquero** Ocular Photography Department

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Ana Wert Paediatric Ophthalmology, Strabismus and Neurophthalmology Department

Charlotte Wolley-Dod Paediatric Ophthalmology, Strabismus and Neurophthalmology Department

Laura Zahiño Optometry and Refraction Department

### FUNDACIÓN | IMO



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