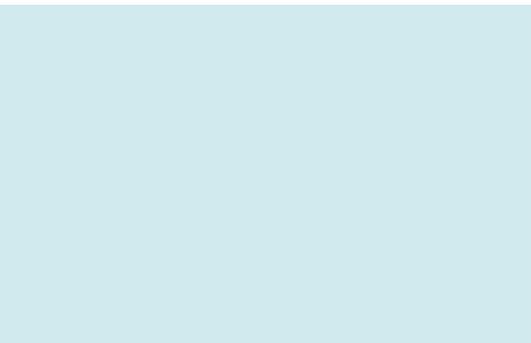


FUNDACIÓN | IMO

# Continuing Education in Ophthalmology programme

Autonomous  
University of Barcelona  
Postgraduate School





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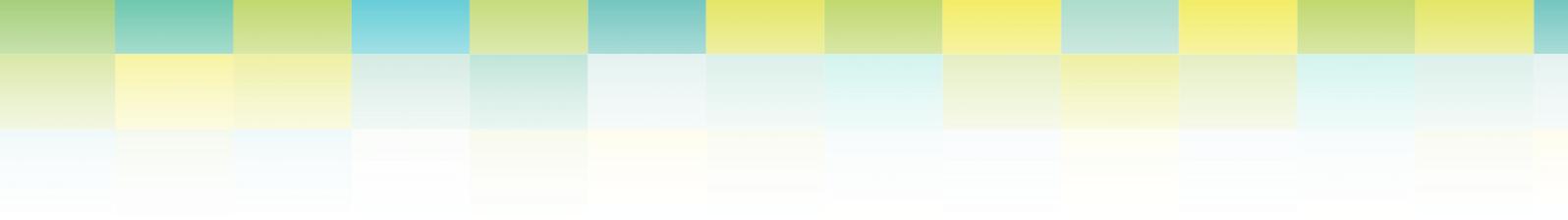
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## Presentation by the Director

As the director of the Instituto de Microcirugía Ocular (IMO) in Barcelona, I am pleased to present this Continuing Education in Ophthalmology Programme. The programme describes the different master's and postgraduate degrees organised by the Autonomous University of Barcelona and the IMO Foundation.

As you already know, significant progress has been made in the field of Ophthalmology over recent years, with the constant appearance of new technologies that perfect the methods of diagnosis and treatments, whether they are medical or surgical. It is only through constant research and on-going medical education that it is possible for us to continue improving the quality of care.

The Instituto de Microcirugía Ocular was founded by a group of ophthalmology physicians in their different specialities who, after several years of working together, decided to join forces to make greater progress and to offer the highest level of technical resources in their work. This Continuing Education programme seeks to teach the different specialities to ophthalmologists, people with diplomas in nursing, optics and optometry, with some prior experience and an interest in updating their knowledge of the new technologies and their application in Ophthalmology.

### **Dr Borja Corcóstegui**

Medical Director

# Master in Ophthalmic and Orbital Plastic Surgery

## Continuing Education in Ophthalmology Programme

The programmes are to be taught at the Instituto de Microcirugía Ocular (IMO) in Barcelona, Calle Josep Maria Lladó, 3, Barcelona 08035 (just off the roundabout at Junction 7 of the B20 - Ronda de Dalt ring road).

## Organised by

IMO Foundation.

## Course objective

This programme is aimed at ophthalmologists with some previous experience and an interest in acquiring specialised knowledge in Orbital and Ophthalmic Plastic Surgery.

Students will participate in theoretical and practical elements of day-to-day practice.

## Lecturers

Dr Ramón Medel  
Dr Juan Carlos Sánchez  
Dr Luz María Vásquez

## ECTS credits

80

## Assessment method

Continuous assessment and a theory and practice examination.  
Attendance and completion of research work are obligatory.

## Start date

11 January 2021

## End date

23 December 2021

## Course fees

The Autonomous University of Barcelona course fee is €8,860.  
The course fee should be paid at the IMO's office.

## General principles:

- Patient examination in consultation room.
- Performing of supplementary tests.
- Assisting in surgeries.
- Emergency care
- Participation in research work.
- Presence and participation in teaching activities.

## Conjunctiva and Ocular Surfacepathology:

- Management of conjunctival disorders and chalazion: pterigion, simblefaron, chalazion, ocular rosacea, conjunctival tumours, etc.
- Clinical presentation of eyelid lesions: benign and malignant tumours.

## Orbitofacial trauma:

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

## Eyelid malpositions:

- Management of: entropion, ectropion, trichiasis, distichiasis, ptosis, lagophthalmos and retraction, tissue loss, etc.
- Brow ptosis study and surgery 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 eyelid 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 Bell's palsy: differential diagnosis, clinical examination, etc.

## Eyelid reconstruction:

- Surgical reconstruction of lower and upper eyelids with partial or total defects
- Reconstruction of canthal defects: medial, lateral and delayed reconstruction
- Alternative treatments for periocular neoplasms, chemotherapy, cryotherapy, etc.

## Orbital surgery:

- Assessment and spectrum of orbital disorders
- Examination and surgical study of the orbit
- Techniques for optic nerve sheath decompression
- Craniofacial and periorbital surgery
- Enucleation and evisceration surgery and study of orbital implants
- Treatment of complications
- Exenteration surgery: indications, surgical techniques, etc.
- Management of anophthalmic cavity deformities, including enophthalmos and contraction
- Care and management of ocular prostheses

## Lacrimal system:

- Assessment of the lacrimal system and clinical diagnosis
- Assessment of the lacrimal drainage system, lacrimal irrigation, different diagnostic tests and diagnostic imaging techniques
- Lacrimal issues in children: diagnosis, treatment, etc.
- Surgery of the lacrimal system: techniques and results  
Dacryocystorhinostomy techniques, treatment of canalicular abnormalities, surgery of congenital obstruction of the lacrimonasal duct

# Master in Cornea and Refractive Surgery

## Continuing Education in Ophthalmology Programme

The programmes are to be taught at the Instituto de Microcirugía Ocular (IMO) in Barcelona, Calle Josep Maria Lladó, 3, Barcelona 08035 (just off the roundabout at Junction 7 of the B20 - Ronda de Dalt ring road).

## Organised by

IMO Foundation.

## Course objective.

This course is aimed at ophthalmologists with some previous experience and an interest in acquiring specialised knowledge in cornea and refractive surgery.

Students will participate in theoretical and practical elements of day-to-day practice.

## Lecturers

Dr Miriam Barbany  
Dr Daniel Elies  
Dr Óscar Gris  
Dr José L. Güell  
Dr Felicidad Manero

## ECTS credits

80

## Assessment method

Continuous assessment and a theory and practice examination.  
Attendance and completion of research work are obligatory.

## Start date

11 January 2021

## End date

23 December 2021

## Course fees

The Autonomous University of Barcelona course fee is €8,860.  
The course fee should be paid at the IMO's office.

## General principles:

- Patient examination in consultation room.
- Performing of supplementary tests.
- Assisting in surgeries.
- Emergency care
- Participation in research work.
- Presence and participation in teaching activities.

## Cornea:

- Basic sciences
- Physiology, morphology and pathological response, immunology, microbiology, cell cultures, complementary examinations (impression cytology, specular microscopy, anterior OCT, ORA, pachymetry, topography, etc.)
- OQAS vision quality
- Schirmer's tear test

## Cornea, clinical aspects Ocular Surface Surgery:

- Clinical aspects: infectious diseases, immunologic diseases, corneal manifestations of systemic and nutritional disorders, dystrophy and degeneration, congenital and metabolic disorders, oncology
- Corneal trauma: diagnosis, study and treatment.
- Surgical techniques, indications, complications and results.
- Conjunctival surgery
- Sclerocorneal limbus surgery Corneal surgery: lamellar and penetrating keratoplasty, endothelial keratoplasty, corneal crosslinking, amniotic membrane transplantation
- Related eyelid surgery
- Assisted corneal surgery using Femtosecond Laser

## Dry eye:

- Assessment methods and treatment: clinical aspects
- Diagnostic methods (Schirmer's Test, Rose Bengal/Lissamine Green and Osmolarity Test)
- Topical and oral medical treatment
- Surgical procedures

## Refractive surgery:

- Assessment methods: basic principles; refraction (objective, automated 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, morphologic response, laser technology applied to the cornea
- Incisional surgery (astigmatism), lamellar surgery (LASIK), PRK, intracorneal rings and lenses
- Indications and results

## Intraocular refractive surgery:

- Basic principles: refraction (objective, automated subjective)
- Corneal topography methods (projection and elevation), pachymetry, confocal microscopy, optical quality assessment methods (OQCAS, wavefront, OCT, other methods)
- Surgical techniques:
  - › Crystalline Lens Surgery.
  - › Indications and results
- Crystalline lens surgery, anterior and posterior chamber phakic lenses
- Indications and results

## Ocular surface tumours:

- Diagnostic methods, monitoring, as well as medical and surgical treatment
- Indications and results
- Histochemical assessment and other non-invasive assessment tests

# Master in Strabismus and Paediatric Ophthalmology

## Continuing Education in Ophthalmology Programme

The programmes are to be taught at the Instituto de Microcirugía Ocular (IMO) in Barcelona, Calle Josep Maria Lladó 3, Barcelona 08035 (just off the roundabout at Junction 7 of the Ronda de Dalt ring road).

## Organised by

IMO Foundation.

## Course objective.

This course is aimed at ophthalmologists with some previous experience and an interest in acquiring specialised knowledge in Strabismus and Paediatric Ophthalmology.

Students will participate in theoretical and practical elements of day-to-day practice.

## Lecturers

Dr Josep Visa  
Dr Ana Wert  
Dr Charlotte Wolley-Dod

## ECTS credits

80

## Assessment method

Continuous assessment and a theory and practice examination.  
Attendance and completion of research work are obligatory.

## Start date

11 January 2021

## End date

23 December 2021

## Course fees

The Autonomous University of Barcelona course fee is €8,860.  
The course fee should be paid at the IMO's office.

## General principles:

- Patient examination in consultation room.
- Performing of supplementary tests.
- Assisting in surgeries.
- Emergency care
- Participation in research work.
- Presence and participation in teaching activities.

## Strabismus:

- Strabismus basics: Anatomy of extraocular and orbital muscles.
- Organisation of the oculomotor system
- The concept of diplopia
- Visual direction
- Visual confusion
- Sensory adaptation
- Motor value
- Fusion and extent of fusion
- Medical history
- Objective and subjective examination

## Childhood strabismus:

- Examination
- Diagnosis and management of children with strabismus.
- Esotropia
- Exotropia
- Alphabetic syndromes
- Hyperaction of the oblique muscles
- Cranial nerve palsy

## Strabismus in adults:

- Surgery for childhood-onset strabismus in adulthood.
- Sensory strabismus: management and surgery
- Strabismus secondary to eye surgery: strabismus secondary to retinal surgery with particular attention to retinal detachment surgery
- Strabismus secondary to cataract surgery
- Strabismus secondary to refractive surgery
- Assessing the risk of diplopia and/or oculomotor deviation in refractive surgery patients.
- Strabismus secondary to orbital surgery
- Strabismus secondary to glaucoma surgery
- Strabismus secondary to ocular surface surgery.

## Neuro-ophthalmology in

### childhood:

- Approach to optic disc oedema in children, cranial nerve palsy

## Diplopia:

- Pathophysiological basis of diplopia
- Examination of diplopia patients
- Medical history
- Etiologic diagnosis and clinical approach
- Prism therapy
- Surgical management

## Paediatric ophthalmology:

- Early detection of disorders and comprehensive management of paediatric patients with eye disorders
- Amblyopia: concept, pathophysiological bases and classification
- Refraction technique and prescription of glasses and occlusion therapy, evolution and monitoring
- Abnormalities of embryonic development: congenital cataracts, classification, associated abnormalities, clinical and surgical management, when and how to operate, surgical approaches and techniques
- Visual rehabilitation and monitoring
- Microphthalmia
- Coloboma
- Anterior segment dysgenesis
- Retinal disorders in

## childhood:

- Clinical management and therapeutic approach to various diseases: retinal detachment in childhood, retinopathy of prematurity, dysplasia and retinal 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 disorders associated with systemic

- disease:
- The impact of different systemic diseases
- on the eye.

# Master in Glaucoma

## Continuing Education in Ophthalmology Programme

The programmes are to be taught at the Instituto de Microcirugía Ocular (IMO) in Barcelona, Calle Josep Maria Lladó, 3, Barcelona 08035 (just off the roundabout at Junction 7 of the B20 - Ronda de Dalt ring road).

### Organised by

IMO Foundation.

### Course objective.

This course is aimed at ophthalmologists with some previous experience and an interest in acquiring specialised knowledge in Glaucoma.

Students will participate in theoretical and practical elements of day-to-day practice.

### Lecturers

Dr Elena Arrondo  
Dr Silvia Freixes  
Dr Laia Pascual

### ECTS credits

80

### Assessment method

Continuous assessment and a theory and practice examination.  
Attendance and completion of research work are obligatory.

### Start date

11 January 2021

### End date

23 December 2021

### Course fees

The Autonomous University of Barcelona course fee is €8,860.  
The course fee should be paid at the IMO's office.

## General principles:

- Patient examination in consultation room.
- Performing of supplementary tests.
- Assisting in surgeries.
- Emergency care
- Participation in research work.
- Presence and participation in teaching activities

## Anatomy and Pathophysiology of Glaucoma:

- Anatomy of the irido/corneal angle and aqueous humour drainage routes
- Anatomy of the ciliary body
- Anatomy of the optic nerve
- Physiology of the aqueous humour
- Pathogenic mechanisms of congenital glaucoma
- Pathogenic mechanisms of primary open-angle glaucoma
- Pathogenic mechanisms of primary closed-angle glaucoma
- Pathogenic mechanisms of secondary glaucoma

## Primary glaucoma:

- Epidemiology and risk factors
- Clinical symptoms of congenital glaucoma
- Clinical symptoms of primary open-angle glaucoma
- Clinical symptoms of primary closed-angle glaucoma
- Clinical symptoms of normotensive glaucoma

## Secondary glaucoma.

- Etiopathology and classification
- Clinical symptoms of secondary open-angle glaucoma (acute and chronic)
- Clinical symptoms of secondary closed-angle glaucoma (acute and chronic)

## Diagnostic techniques:

- Anterior segment biomicroscopy
- Posterior segment biomicroscopy
- Optic disc biomicroscopy
- Direct, indirect and dynamic gonioscopy
- Direct and indirect optic disc ophthalmoscopy
- Campimetry: white/white perimetry, blue/yellow perimetry, full threshold perimetry and perimetry with rapid techniques
- Analysis of the nerve fibres of the retina and optic disc: HRT, GDx, OCT

- Pachymetry and ultrasound biomicroscopy
- Ocular Response Analyser (ORA).

## Medical treatment:

- Hypotensive eye drugs: aqueous humour production inhibitors and outflow enhancers
- Mechanisms of action and adverse effects of different drugs
- Monotherapies and fixed combinations

## Laser treatment:

- Laser types: argon, diode, Nd: YAG
- Treatments: Peripheral iridotomy with Nd: YAG laser, peripheral iridoplasty and trabeculoplasty with argon or diode laser
- Suture lysis with argon laser and goniotomy with Nd: YAG
- Cyclophotocoagulation and endocyclophotocoagulation with diode laser

## Surgical treatment:

- Penetrating filtering surgery: Trabeculectomy
- Non-penetrating filtering surgery: deep sclerectomy
- Tube shunts: Ahmed valve and Molteno drainage device
- Antimetabolites: 5FU and mitomycin C

# Master in Anterior Segment

## Continuing Education in Ophthalmology Programme

The programmes are to be taught at the Instituto de Microcirugía Ocular (IMO) in Barcelona, Calle Josep Maria Lladó, 3, Barcelona 08035 (just off the roundabout at Junction 7 of the B20 - Ronda de Dalt ring road).

## Organised by

IMO Foundation.

## Course objective.

This course is aimed at ophthalmologists with some previous experience and an interest in acquiring specialised knowledge in Anterior Segment.

Students will participate in theoretical and practical elements of day-to-day practice.

## Lecturers

Dr Elena Arrondo  
Dr Miriam Barbany  
Dr Daniel Elies  
Dr Silvia Freixes  
Dr Óscar Gris  
Dr José L. Güell  
Dr Isabel Nieto  
Dr Laia Pascual

## ECTS credits

80

## Assessment method

Continuous assessment and a theory and practice examination.  
Attendance and completion of research work are obligatory.

## Start date

11 January 2021

## End date

23 December 2021

## Course fees

The Autonomous University of Barcelona course fee is €8,860.  
The course fee should be paid at the IMO's office.

## General principles:

- Patient examination in consultation room.
- Performing of supplementary tests.
- Assisting in surgeries.
- Emergency care
- Participation in research work.
- Presence and participation in teaching activities.

## Cornea:

- Diagnostic methods
- Basic tests for the examination of corneal disorders
- 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
- Outpatients
- Collection of documentation for research and publications

## Crystalline lens:

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

## Glaucoma:

- General concepts: glaucomatous optic neuropathy.
- Anatomy and physiology of the chamber angle, ciliary body, dynamics and aqueous humour drainage routes
- Intraocular pressure, quantification method
- Intraocular pressure and glaucoma
- Glaucoma diagnosis: early detection
- Basic glaucoma detection tests: visual fields
- Technique and interpretation
- Other diagnostic and monitoring methods
- Pharmacology: agents, pharmacodynamics, side effects.
- Combinations
- General treatment principles
- Surgical treatment
- Penetrating techniques
- Non-penetrating techniques
- Clinical cases: presentation and assessment
- Other non-surgical glaucoma treatments
- Outpatients
- Collection of documentation for research and publications

# Master in Retina and Vitreous

## Continuing Education in Ophthalmology Programme

The programmes are to be taught at the Instituto de Microcirugía Ocular (IMO) in Barcelona, Calle Josep Maria Lladó 3, Barcelona 08035 (just off the roundabout at Junction 7 of the Ronda de Dalt ring road).

## Organised by

IMO Foundation.

## Course objective.

This course is aimed at ophthalmologists with some previous experience and an interest in acquiring specialised knowledge in Vitreous/Retina.

Students will participate in theoretical and practical elements of day-to-day practice.

## Lecturers

Dr Aniken Bures  
Dr Borja Corcóstegui  
Dr José García-Arumí  
Dr Carlos Mateo  
Dr Rafael Navarro  
Dr Cecilia Salinas

## ECTS credits

80

## Assessment method

Continuous assessment and a theory and practice examination.  
Attendance and completion of research work are obligatory.

## Start date

11 January 2021

## End date

23 December 2021

## Course fees

The Autonomous University of Barcelona course fee is €8,860.  
The Autonomous University of Barcelona course fee should be paid at the Office of the Instituto de Microcirugía Ocular

## General principles:

- Patient examination in consultation room.
- Performing of supplementary tests.
- Assisting in surgeries.
- Emergency care
- Participation in research work.
- Presence and participation in teaching activities.

## Retinal detachment in its various forms

- Rhegmatogenous and secondary
- Clinical study, differential diagnosis and treatment
- Patient assessment in the consulting room and surgical treatment
- Complementary tests for better understanding of retinal detachment: biomicroscopy, ultrasound examination in one- and two-dimensional B mode, panoramic photography of the fundus and study with optical coherence tomography

## Retinal vascular disorders

- Diabetic retinopathy is covered in detail with respect to diagnosis with angiography and tomography and its intraretinal and proliferative forms.
- Surgical indications and treatment with photocoagulation or vitrectomy
- On-going trials for the treatment of the disorder
- Study and collection of documentation and participation in clinical trials
- Other retinal vascular diseases will be studied, such as obstruction of the central and branch vein and new treatments

## Macular disorders

- Degeneration of the macula, assessment of its various forms by means of fluorescein angiography, indocyanine green angiography and other methods
- Treatment with thermal photocoagulation, transpupillary thermotherapy, photodynamic therapy and macular translocation
- Treatments with intravitreal anti-VEGFs
- Macular hole
- Accurate re-assessment of its diagnosis with OCT and other methods
- Macular hole surgery

- The macular epiretinal membrane and dissection of the internal limiting membrane, indications and technique

## Intraocular tumours

- Particular attention is paid to melanoma and its diagnostic and therapeutic aspects
- Practical examination of different treatments with new photocoagulation techniques, radiation therapy with plaques and tumour resection
- Participation in multi-centre and pilot studies on different types of tumour

## Intraocular inflammation

- Posterior uveitis, classification and medical and surgical treatment
- The study of patients with chronic inflammation and new on-going trials with intraocular devices to control inflammation
- Surgical indications for inflammatory processes

## Retinal dystrophies

- Diagnosis and differential diagnosis
- The current role of ocular electrophysiology in the diagnosis of fundus disorders
- Current genetic studies

# Postgraduate Diploma in Ophthalmic Surgery Nursing

## Continuing Education in Ophthalmology Programme

The programmes are to be taught at the Instituto de Microcirugía Ocular (IMO) in Barcelona, Calle Josep Maria Lladó 3, Barcelona 08035 (just off the roundabout at Junction 7 of the Ronda de Dalt ring road).

## Organised by

IMO Foundation.

## Course objective.

This course is aimed at Diploma graduates/Qualified Nurses with some previous experience and an interest in updating their knowledge of new technology and its application in ophthalmic surgery.

## Lecturers

Mrs Nuria Durán  
Mrs Mónica Guardia  
Mrs Verónica Guiu  
Mrs Noemí Martínez  
Mrs Marta Oller  
Mrs Mar Palomares

## ECTS credits

36

## Assessment method

Continuous assessment and a theory and practice examination.  
Attendance and the postgraduate thesis are obligatory.

## Start date

11 January 2021

## End date

23 December 2021

## Course fees

The Autonomous University of Barcelona course fee is €4,235.  
The Autonomous University of Barcelona course fee should be paid at the Office of the Instituto de Microcirugía Ocular

## General principles:

- Ocular anatomy and physiology: anterior pole, posterior pole, ocular adnexa and optic tracts
- Most prevalent eye disease: anterior pole, posterior pole and ocular adnexa
- The most commonly used drugs in ophthalmology
  - › Preparation and specific concentrations.
  - › Routes of administration
- Laser in ophthalmic surgery.
  - › Safety measures.

## Basics concepts of nursing in the ophthalmic operating room:

- Layout and organisation of the operating room
- Basic and specific instruments
- Sutures and implants Types and materials
- Operation of surgical equipment
- Ophthalmic anaesthesia: Types of anaesthesia and nurse collaboration
- Physical and psychological preparation of patients at the preoperative stage
- Preparing the surgical site and infection control
- Operating theatre tidiness and instrument cleanliness and care
  - › Sterilisation methods and cutting-edge soaps

## Instrumentation and the nurse's role in ophthalmic surgery:

- Anterior Segment surgery: cataracts, phakic lens implant, deep sclerectomy, valve surgery and trabeculectomy, keratoplasty, amniotic membrane implantation
- Posterior Segment: retinal detachment, venous thrombosis surgery, macular hole, macular indentation, vitreous haemorrhage, intraocular tumours, trauma and foreign bodies
- Eyelids, orbit and lacrimal ducts: blepharoplasty, ptosis, evisceration, enucleation, entropion, ectropion, orbital decompression, tissue grafting, endoscopic lacrimal surgery
- Refractive.
- Strabismus surgery

## Immediate postoperative patient care:

- Waking up and moving patients, the most common short- and medium-term complications, prevention, postoperative pain considerations, guidelines for the administration of medical treatment, information and postoperative education
- Management of Human Resources and Materials: anticipating material needs, surgical team dynamics

# Postgraduate Diploma in Ocular Photography

## Continuing Education in Ophthalmology Programme

The programmes are to be taught at the Instituto de Microcirugía Ocular (IMO) in Barcelona, Calle Josep Maria Lladó, 3, Barcelona 08035 (just off the roundabout at Junction 7 of the B20 - Ronda de Dalt ring road).

## Organised 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

Mrs Paulina Hernández  
Mr Alfons T. Margalef  
Mr Manuel Montilla  
Mr Álvaro Terroba  
Mrs Anna Vaquero

## ECTS credits

36

## Assessment method

Continuous assessment and a theory and practice examination.  
Attendance and completion of research work are obligatory.

## Start date

11 January 2021

## End date

23 December 2021

## Course fees

The Autonomous University of Barcelona course fee is €4,235.  
The Autonomous University of Barcelona course fee should be paid at the Office of the Instituto de Microcirugía Ocular

## General principles:

Ocular anatomy and physiology: anterior pole, ocular adnexa, posterior pole and optic tracts

- Eye diseases: the most prevalent disorders of the anterior pole, ocular adnexa, posterior pole
- Ophthalmic surgery:
  - › Indications.
  - › Prior tests.
- Surgery of: eyelids, lacrimal system, orbit, cornea, crystalline lens and retina
- Types of ophthalmic lasers
- Safety measures
- The most commonly used drugs in ophthalmology:
  - › Types. Indications
  - › Routes of administration

## Medical history and basic examinations:

- Anamnesis
- Visual acuity
- Tonometry
- Refraction
- Slit lamp

## External eye photography:

- Materials, types of cameras, basic photography concepts and protocols according to disorder

## Anterior Segment Slit Lamp Photography:

- Photographic features of the slit lamp
- Accessories, lighting techniques and indications, protocols according to disorder, angle photography

## Fundus photography:

- 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

## Digital Capture System, Filing and Image Processing:

- Features
- Software: ImageNet, Adobe Photoshop

## Optical coherence tomography:

- Anterior segment OCT, high-resolution posterior segment OCT.
  - HRT.
  - Ultrasound techniques:
    - › Ultrasound Biomicroscope.
    - › Posterior segment B ultrasound

## Care of patients undergoing angiographic techniques:

- Information
- Patient preparation
- Possible complications
- Prevention
- Post-angiographic care
- Recommendations

# Postgraduate Diploma in Clinical Optometry

## Continuing Education in Ophthalmology Programme

The programmes are to be taught at the Instituto de Microcirugía Ocular (IMO) in Barcelona, Calle Josep Maria Lladó 3, Barcelona 08035 (just off the roundabout at Junction 7 of the Ronda de Dalt ring road).

## Organised 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

Mrs Neus Calvet  
Mrs Carol Camino  
Mrs Mireia Campos  
Mrs Marta Farré  
Mrs Silvia Funes  
Mrs Claudia Garrido

Mrs Laura González  
Mrs Lourdes Jiménez  
Mrs Elisabet Lobato  
Mrs Nuria Martínez  
Mrs Elisenda Mata  
Mrs Cristina Muñoz

Mrs Ana Nolla  
Mrs Elena Núñez  
Mrs Carmen L. Ruano  
Mrs Laura Salomó  
Mrs Maite Sisquella  
Mrs Sandra Suescun  
Mrs Laura Zahiño

## ECTS credits

36

## Assessment method

Students will be assessed continuously or through the presentation of a research thesis. Attendance and completion of research work are obligatory.

## Start date

11 January 2021

## End date

23 December 2021

## Course fees

The Autonomous University of Barcelona course fee is €4,235.  
The Autonomous University of Barcelona course fee should be paid at the Office of the Instituto de Microcirugía Ocular

## General principles:

- Ocular anatomy and physiology: anterior pole, ocular adnexa, posterior pole and optic tracts
- Eye diseases: the most prevalent disorders of the anterior pole, ocular adnexa and posterior pole
- Ophthalmic surgery: indications and preliminary tests
- Types of ophthalmic lasers
- Most commonly used drugs in Ophthalmology: types, indications and administration routes
- Clinical trials: protocol for measuring best corrected visual acuity (BCVA).
- Research techniques: introduction to statistics.

## Everyday practice:

- Anamnesis
- Measuring visual acuity
- Refraction: retinoscopy and subjective
- Tonometry
- Corneal biomicroscopy
- Assessment of the anterior chamber
- Pupillary reflexes
- Assessment of binocular vision: Cover-test, ocular motility, fusion, stereopsis.

## Complementary tests:

- Computerised campimetry
- Hess-Lancaster test
- Electrophysiological tests (PEV, Sd ERG, mfERG, EOG)
- Keratometry
- Topography
- Pachymetry
- Ocular Response Analyzer (ORA).
- Aberrometry: OQAS, WASCA, KR 1W
- Assessment of macular sensitivity through microperimetry
- Confocal microscopy for the study of corneal endothelial cells
- Biometry: optical (IOLMaster) and contact ultrasound (Alcon)
- Contrast sensitivity test
- Lacrimal assessment: qualitative (BUT), quantitative (Schirmer), lacrimal duct examination, osmolarity test
- Assessment of colour vision (Farnsworth, Ishihara) Optical coherence tomography (OCT)
- Retinography
- Slit lamp photography
- Heidelberg Retinal Tomography (HRT).

## Specialisations:

- Contactology: fitting contact lenses to irregular corneas (keratoconus, ectasia, keratoplasty, etc.)
- Low vision
- Paediatric optometry
- Vision therapy
- Ophthalmic patient care:
- Information
- Health education
- Physical and psychological aspects of care

## Management of Human

## Resources and Materials:

- Consultation planning and scheduling
- Anticipating material needs
- Consultation team dynamics

# General information and Registration

In order to access any of the **Master's programmes**, the application form attached must be sent along with the documents indicated below, for the attention of Ms. Mar Moragas, Secretary of the Teaching Committee, before 30 September 2020.

- Photocopy of valid ID document or Foreigners' Identification card
- Detailed and updated CV
- Officially legalised and certified Degree in Medicine and Surgery
- Officially legalised and certified Specialist in Ophthalmology title
- English certificate
- 3 passport-sized photographs

Applicants who wish to do paid shift work at the centre during the master's degree course must submit the following documents in addition to those mentioned above:

- Specialist in Ophthalmology title approved by the Spanish Ministry of Education and Vocational Training
- Certified copy of full membership to the Barcelona Physicians Association
- Verification at source of both titles (Medicine and Surgery and Ophthalmology)
- Valid work permit for the duration of the course
- Spanish certificate

In order to access the **Postgraduate** programmes, the **application** form attached must be sent along with the documents indicated below, for the attention of Ms Mar Moragas, Secretary of the Teaching Commission, from 1 to 30 September 2020.

- Photocopy of ID document or Foreigners' Identification card
- Detailed and updated CV
- Certified photocopy of the official Diploma in Nursing and/or in Optics and Optometry
- 3 passport-sized photographs

In order to attend the entire training programme, applicants must hold a full membership at the corresponding professional association and a work permit for the duration of the course.

Once these documents have been received, the Teaching Commission will assess the candidacies and will inform of acceptance or rejection in writing.

Once the candidates to the **Master's** degrees have been accepted, they must pay the course **registration** fee from 1 to 15 December 2020 at the Instituto de Microcirugía Ocular by banker's cheque made out to La Fundació de Recerca de l'Institut de Microcirurgia Ocular or by bank transfer (BBVA ES77 0182 4370 80 0201514067), for the amount indicated in each course. In the case of **Postgraduates**, the period for payment of the course registration fee is from 1 to 15 December 2020.

# Admission Application

## Master's in:

- |  |   |
|--|---|
| <input type="checkbox"/> Orbital and Ophthalmic Plastic Surgery  | <input type="checkbox"/> Glaucoma         |
| <input type="checkbox"/> Cornea and Refractive Surgery           | <input type="checkbox"/> Anterior Segment |
| <input type="checkbox"/> Strabismus and Paediatric Ophthalmology | <input type="checkbox"/> Vitreous/Retina  |

## Postgraduates in:

- Ophthalmic Surgery Nursing
- Ocular Photography
- Clinical Optometry

Tick your preference(s) and complete your personal details and the documents required for your admission. Send to the Secretary at the Instituto de Microcirugía Ocular, Calle Josep Maria Lladó 3, 08035 Barcelona or by e-mail to [imo@imo.es](mailto:imo@imo.es).

Call (+34) 934 00 07 00 with any queries.

Full name

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Address

---

Town/City

---

Province

---

Post code

---

Phone

---

Mobile phone

---

E-mail

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We inform you that the personal data provided will be processed by the Fundació de Recerca del Institut de Microcirurgia Ocular (the IMO Foundation), holder of Tax ID No. CIF G65299950, with address at C/ Josep Maria Lladó, 3, 08035 Barcelona, Spain, telephone no. 93 400 0700 and email [info@fundacionimo.org](mailto:info@fundacionimo.org). You can contact the data controller at the email address [dpd.rgpd@fundacionimo.org](mailto:dpd.rgpd@fundacionimo.org).

Your personal data will be processed in order to enable us to carry out training course enrolment, administrative management, monitoring and verification of compliance with the conditions established for implementing the proposed training. If you do not provide the information requested on the form, we will not be able to process your enquiry. In the event that you give consent, you will be kept informed of other activities, products and services offered by the Instituto de Microcirugía Ocular Dos, S.L.U. and Fundació de Recerca de l'Institut de Microcirurgia Ocular (the IMO Foundation). The legal basis for processing is the implementation of pre-contractual and contractual measures, and express consent for sending information related to our activities.

The personal data provided will be kept for the time required to comply with legal and contractual obligations in accordance with current regulations. 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 the Instituto de Microcirugía Ocular DOS S.L.U. (IMO Dos) with address at C/ Josep Maria Lladó, 3, 08035 Barcelona, Spain, telephone no. 93 400 0700 and email [informacion@imo.es](mailto:informacion@imo.es). You can contact the data protection officer at the email address [dpd.rgpd@imo.es](mailto:dpd.rgpd@imo.es).

You are informed that you can exercise your rights of access, rectification, erasure, restriction, portability, objection, withdrawal of consent granted and not being subject to a decision based solely on automated processing. You can obtain more information on your rights from the website of the Spanish Data Protection Agency, and can file any complaints you consider appropriate with this body. In addition, with respect to the right to one's own image recognised by Article 18.1 of the Spanish Constitution and regulated by Organic Law 1/1982 of 5 May concerning 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.

You authorise the IMO and IMO Foundation to inform you by any means of other activities, products and services offered by IMO Dos and the IMO Foundation.

Full Name

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Date

---

Signature

---

# IMO Teaching Staff

## **Elena Arrondo**

Glaucoma Department

## **Miriam Barbany**

Cornea and Refractive Surgery Department

## **Aniken Bures**

Vitreous-retina symposium

## **Neus Calvet**

Optometry and Refraction Department

## **Carol Camino**

Optometry and Refraction Department

## **Mireia Campos**

Optometry and Refraction Department

## **Borja Corcóstegui**

Director of the Professorship Ocular Microsurgery Institute at the Autonomous University of Barcelona.

## **Nuria Durán**

Surgical Nursing Department

## **Daniel Elíes**

Cornea and Refractive Surgery Department

## **Marta Farré**

Optometry and Refraction Department

## **Silvia Freixes**

Glaucoma Department

## **Silvia Funes**

Optometry and Refraction Department

## **José García-Arumí**

Ophthalmology professor at the Autonomous University of Barcelona and IMO Vitreous/Retina Department

## **Claudia Garrido**

Optometry and Refraction Department

## **Laura González**

Optometry and Refraction Department

## **Óscar Gris**

Cornea and Refractive Surgery Department

## **Mónica Guardia**

Cornea and Refractive Surgery Department

## **José L. Güell**

Cornea and Refractive Surgery Department

## **Verónica Guiu**

Surgical Nursing Department

## **Paulina Hernández**

Ocular Photography Department

## **Marisa Jaén**

Surgical Area Coordinator

## **Lourdes Jiménez**

Optometry and Refraction Department

## **Elisabet Lobato**

Optometry and Refraction Department

## **Felicidad Manero**

Cornea and Refractive Surgery Department

## **Alfons T. Margalef**

Ocular Photography Department

## **Noemi Martínez**

Surgical Nursing Department

## **Núria Martínez**

Optometry and Refraction Department

## **Elisenda Mata**

Optometry and Refraction Department

## **Carlos Mateo**

Vitreous/Retina Department

## **Ramón Medel**

Oculoplastics Department Aesthetics and oculofacial rejuvenation Department

## **Manuel Montilla**

Ocular Photography Department

## **Cristina Muñoz**

Optometry and Refraction Department

## **Rafael Navarro**

Vitreous/Retina Department

## **Isabel Nieto**

Cataract and Anterior Segment Department

## **Ana Nolla**

Optometry and Refraction Department

## **Elena Núñez**

Optometry and Refraction Department

## **Marta Oller**

Surgical Nursing Department

## **Mar Palomares**

Surgical Nursing Department

## **Laia Pascual**

Glaucoma Department

## **Raquel Ramos**

Optometry and Refraction Department

## **Cecilia Salinas**

Vitreous/Retina Department

## **Laura Salomó**

Optometry and Refraction Department

## **Juan Carlos Sánchez**

Oculoplastics Department Aesthetics and oculofacial rejuvenation Department

## **Maite Sisquella**

Optometry and Refraction Department

## **Sandra Suescun**

Optometry and Refraction Department

## **Álvaro Terroba**

Ocular Photography Department

## **Luz María Vásquez**

Oculoplastics Department Aesthetics and oculofacial rejuvenation Department

## **Josep Visa**

Paediatric Ophthalmology, Strabismus and Neuro-ophthalmology Department

## **Ana Wert**

Paediatric Ophthalmology, Strabismus and Neuro-ophthalmology Department

## **Charlotte Wolley-Dod**

Paediatric Ophthalmology, Strabismus and Neuro-ophthalmology Department

## **Laura Zahiño**

Optometry and Refraction Department



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