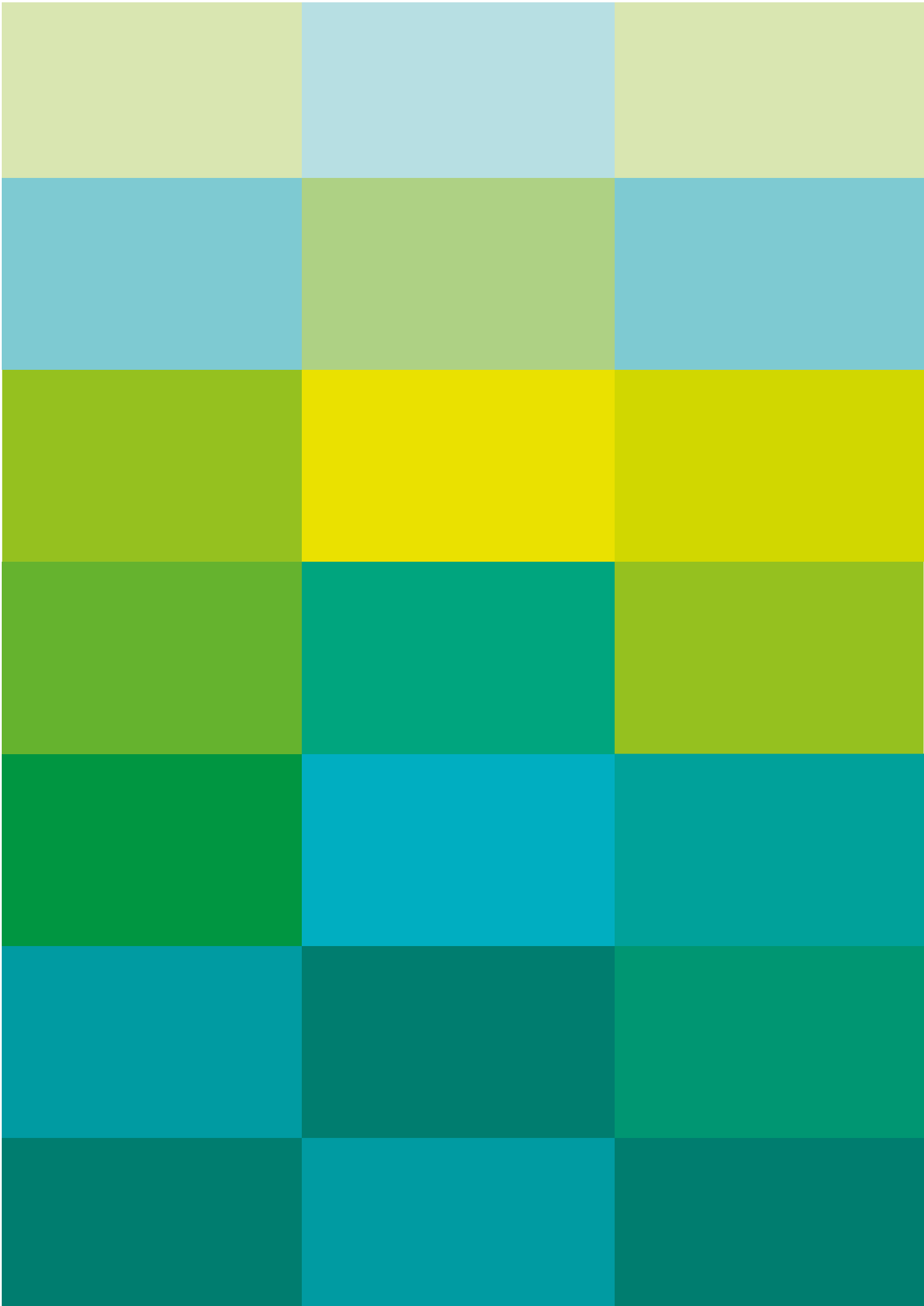
FUNDACIÓN | IMO

Autonomous
University of Barcelona
Postgraduate School

Continuing Education in Ophthalmology Programme 2023



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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 specialities 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 Ramón Medel
Dr Joan Oliveres
Dr Luz María Vásquez

ECTS credits

80 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

09 January 2023

End date

22 December 2023

Course fees

The registration fee is € 8,920. It must be paid by bank transfer.
(IBAN: BBVA ES77 0182 4370 80 0201514067 - SWIFT/BIC: BBVAESMM 0182 4370 80 02015140).

General principles:

- 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.

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

ECTS credits

80 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

09 January 2023

End date

22 December 2023

Course fees

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

General principles:

- 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:

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

Ocular Surface Tumours:

- 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

80 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

09 January 2023

End date

22 December 2023

Course fees

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General principles:

- 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.

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

ECTS credits

80 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

09 January 2023

End date

22 December 2023

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General principles:

- 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.

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 Miriam Barbany
Dr Daniel Elies
Dr Natalino Giuliano
Dr Oscar Gris
Dr José L. Güell

ECTS credits

80 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

09 January 2023

End date

22 December 2023

Course fees

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

General principles:

- 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.

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

ECTS credits

80 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 2022

End date

22 December 2022

Course fees

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

General principles:

- 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 two-dimensional b-mode ultrasound examination, panoramic photography of the back of the eye and optical coherence tomography.

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.

Postgraduate Diploma in Ophthalmic Surgery Nursing

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 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 Mar Palomares

ECTS credits

35 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

09 January 2023

End date

22 December 2023

Course fees

The registration fee is € 4,280. It must be paid by bank transfer.
(IBAN: BBVA ES77 0182 4370 80 0201514067 - SWIFT/BIC: BBVAESMM 0182 4370 80 02015140).

General principles:

- 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.
  - Preparation and specific concentrations.
  - Routes of administration.
- Laser in ophthalmological surgery.
  - Safety measures.

Basic concepts of nursing in the ophthalmology operating room:

- Structure and organisation of the operating room.
- Basic and specific instruments.
- Sutures and implants. Types and materials.
- Handling, use and control of surgical equipment.
- Anaesthesia in Ophthalmology. Types of anaesthesia and nursing collaboration.
- Physical and psychological preparation of the patient during the pre-operative period.
- Preparation of the surgical field and infection control.
- Cleaning of the operating room, cleaning and care of instruments.
  - Sterilisation methods and latest generation soaps.

Instrumentation and nursing collaboration in ophthalmic surgery:

- In anterior segment surgery: cataract, phakic lens implantation, deep sclerectomy, valve surgery and trabeculectomy, keratoplasty, amniotic membrane implantation.
- Posterior segment: retinal detachment, macular hole, macular indentation, vitreous haemorrhage, endovascular tumours, trauma and foreign bodies.
- Eyelids, orbit and tear ducts: blepharoplasty, ptosis, evisceration, enucleation, entropion, ectropion, orbital decompression, tissue grafting, endoscopic lacrimal surgery.
- Refractive surgery.
- Strabismus surgery.

Immediate postoperative patient care:

- Waking up and moving patients, most prevalent short- and medium-term complications, prevention, postoperative pain considerations, guidelines for the administration of medical treatment, post-operative information and education.
- Human and material resource management: material forecasting, surgical team dynamics.

Postgraduate Diploma in Ocular Photography

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

ECTS credits

35 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

09 January 2023

End date

22 December 2023

Course fees

The registration fee is € 4,280. It must be paid by bank transfer.
(IBAN: BBVA ES77 0182 4370 80 0201514067 - SWIFT/BIC: BBVAESMM 0182 4370 80 02015140).

General principles:

- 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:
  - Indications.
  - 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:
  - 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 concepts in photography and protocols according to pathologies.

Anterior segment slit-lamp photography:

- Characteristics of the photographic slit lamp.
- Accessories, illumination techniques and indications, protocols according to pathology, 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:
  - Ultrasonic Biomicroscope.
  - Ultrasound B Posterior segment.

Care of the patient undergoing angiographic techniques:

- Information.
- Patient Preparation.
- Possible complications.
- Prevention.
- Post-angiographic care.
- Recommendations

Postgraduate Diploma in Clinical Optometry

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: Silvia Funes

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

ECTS credits

35 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

09 January 2023

End date

22 December 2023

Course fees

The registration fee is € 4,280. It must be paid by bank transfer.
(IBAN: BBVA ES77 0182 4370 80 0201514067 - SWIFT/BIC: BBVAESMM 0182 4370 80 02015140).

General principles:

- Ocular anatomy and physiology: anterior pole, ocular appendages, posterior pole and optic pathways.
- Ocular pathology: most prevalent pathologies of the anterior pole, ocular appendages and posterior pole.
- Surgery in Ophthalmology: indications and preliminary tests.
- Types of lasers in ophthalmology.
- Most commonly used drugs in ophthalmology: type, indications and routes of administration.
- Clinical trials: protocol for measuring best corrected visual acuity (BCVA).
- Research Techniques: Introduction to Statistics.

Daily Practice in Clinical Optometry:

- Anamnesis.
- Measurement of Visual Acuity.
- Refraction: retinoscopy and subjective.
- Tonometry.
- Corneal biomicroscopy.
- Evaluation of the anterior chamber.
- Pupillary reflexes.
- Evaluation of binocular vision: Cover-Test, Ocular motility, Fusion, Stereopsis.

Complementary tests:

- Computerised campimetry.
- 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 by microperimetry.
- Confocal microscopy for the study of corneal endothelial cells.
- Biometry: optical (IOL MASTER) and ultra-sonic contact (ALCON).
- Contrast Sensitivity Test.
- Lacrimal evaluation: qualitative (BUT), quantitative (Shirmer), tear duct exploration, Osmolarity test.
- Assessment of colour vision (Farnsworth, Ishihara).
- Optical Coherence Tomography (OCT).
- Retinography.
- Slit-lamp photography.
- Heidelberg Retinal Tomography (HRT).

Specialisations:

- Contact lens fitting in irregular corneas (keratoconus, ectasia, keratoplasty, etc).
- Low Vision.
- Paediatric Optometry.
- Visual therapy.

Ophthalmic patient care:

- Information.
- Health education.
- Physical and psychological aspects of care.

Management of Human Resources and Materials:

- Planning of consultations and timetables.
- Material forecasting.
- Dynamics of the consultation team.

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 Mar Moragas, Secretary of the Teaching Committee, **before 31th May 2022.**

- 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.
- 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.

To access any of the Postgraduate programmes, the attached application form must be sent in digital format, together with the documentation detailed below, to the attention of Mrs Mar Moragas, Secretary of the Teaching Committee, **before 30 th June 2022.**

- Certified photocopy of a valid DNI or NIE (identity card).
- Detailed and updated Curriculum Vitae, including a recent photograph.
- Certified photocopy of the officially recognized Diploma in Nursing and/or Diploma in Optics and Optometry.
- Full membership to a practising professional body

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 applications and will communicate in writing the acceptance or rejection of the applications.

Once the candidates have been admitted to the **Master's and Postgraduate courses**, they must pay the **enrolment fee** for the course **from 25 th October to 8 November 2022**, 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

Postgraduates in:

- ☐ Ophthalmic Surgery Nursing
- ☐ Ocular Photography
- ☐ Clinical Optometry

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 dpd.rgpd@fundacionimo.org.
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 Microcirugía 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.rgpd@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

Elena Arrondo
Glaucoma Department

Miriam Barbany
Cornea and Refractive Surgery Department

Aniken Bures
Vitreous / Retina 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
Medical Director
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
Optometry and Refraction Department

Oscar Gris
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Mónica Guardia
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Paulina Hernández
Ocular Photography Department

Marisa Jaén
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Elisabet Lobato
Cornea and Refractive Surgery Department

Felicidad Manero
Cornea and Refractive Surgery Department

Alfons T. Margalef
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Elisenda Mata
Optometry and Refraction Department

Carlos Mateo
Vitreous / Retina Department

Ramón Medel
Departamento de Oculoplástica
Departamento de Estética y Rejuvenecimiento Oculofacial

Manuel Montilla
Postgraduate in Ocular Photography Coordinator
Ocular Photography Department

Cristina Muñoz
Optometry and Refraction Department

Rafael Navarro
Vitreous / Retina Department

Ana Nolla
Postgraduate in Clinical Optometry Coordinator
Optometry and Refraction Department

Elena Núñez
Optometry and Refraction Department
Visual Therapy Department

Marta Oller
Postgraduate in Surgical Nursing Coordinator
Surgical Nursing Department

Mar Palomares
Surgical Nursing Department

Joan Oliveres
Oculoplastics Department

David Pesantes
Ocular Photography Department

Carmen L. Ruano
Optometry and Refraction Department

Cecilia Salinas
Vitreous / Retina Department

Laura Salomó
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Maite Sisquella
Optometry and Refraction Department

Sandra Suescun
Optometry and Refraction Department

Álvaro Terroba
Ocular Photography Department

Anna Vaquero
Ocular Photography Department

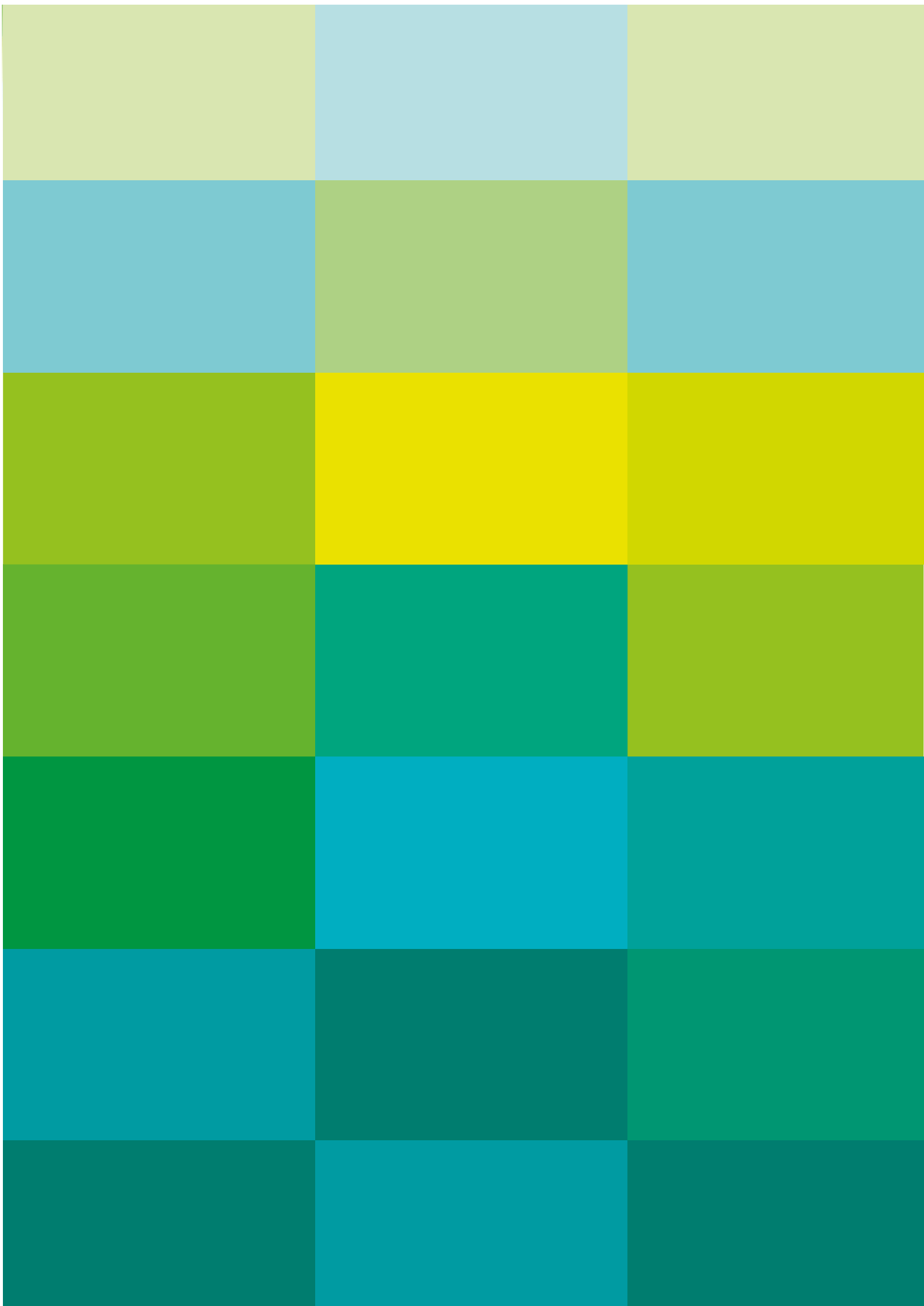
Luz María Vásquez
Oculoplastics Department
Aesthetics and Oculofacial Rejuvenation Department

Josep Visa
Paediatric Ophthalmology, Strabismus and Neurophthalmology Department

Ana Wert
Paediatric Ophthalmology, Strabismus and Neurophthalmology Department

Charlotte Wolley-Dod
Paediatric Ophthalmology, Strabismus and Neurophthalmology Department

Laura Zahiño
Optometry and Refraction Department



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