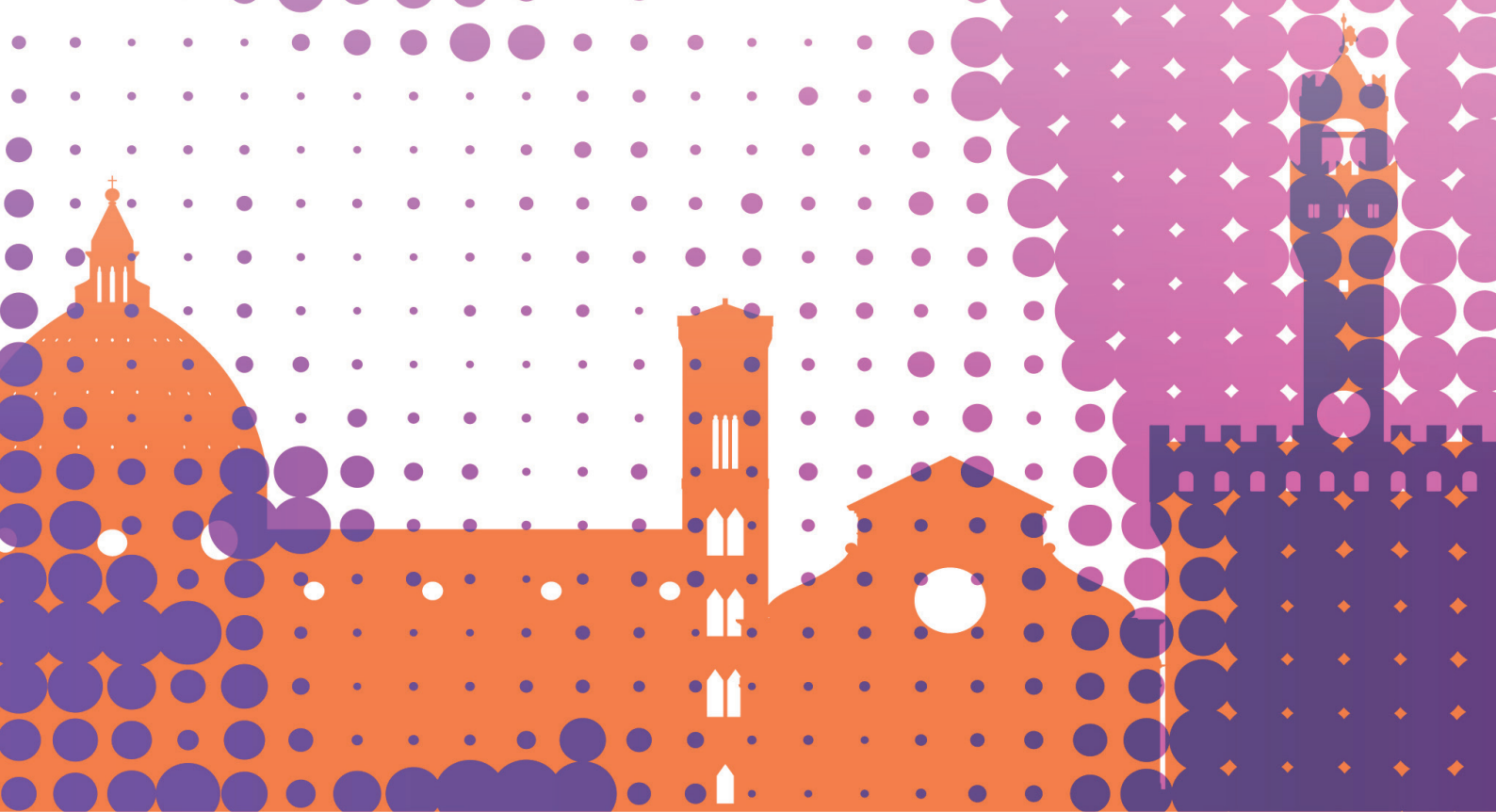
28th EVER CONGRESS

9-11 October 2025
Florence

PRELIMINARY PROGRAMME



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About the programme book

Sessions

BM Business Meeting

CIS Company Interested Symposium

C Course

JM Joint Meeting

KN Keynote Lecture

POS Poster Session

PS Plenary Session

RF Rapid Fire Session

SIS Special Interest Symposium

FR Free Paper Session

Symbol

rf = Rapid Fire presentation

Scientific sections

ACB	=	Anatomy / Cell Biology
COS	=	Cornea / Ocular Surface
EOVS	=	Electrophysiology, Physiological Optics, Vision Sciences
G	=	Glaucoma
IM	=	Immunology / Microbiology
LC	=	Lens and Cataract
MBGE	=	Molecular Biology / Genetics / Epidemiology
NSPH	=	Neuro-ophthalmology/Strabismology / Paediatric Ophthalmology / History of Ophthalmology
PBP	=	Physiology / Biochemistry / Pharmacology
PO	=	Pathology / Oncology
RV	=	Retina / Vitreous

08:30-08:45 | Modulo 2

PS **Opening Ceremony**

08:45-09:30 | Modulo 2

KN **Special Recognition EVER Keynote Lecture**

08:45 Introduction
Andrzej Grzybowski *(Poland)*

08:50 Keynote Lecture
Przemyslaw Sapieha *(Canada)*

09:20 Discussion

09:30-10:45 | Modulo 2

C **LC 87 - Biometry and intraocular lens power calculation**

Starting with ultrasound measurement of the eye in the 70ties of the last century, many attempts have been made to improve ocular biometry. Optical biometry was one of the cornerstones in modern cataract surgery, which was a mandatory requirement for all premium lenses. Today, all distances of the eye and the curvature of the corneal front surface could be measured with a high precision, and some of the biometers also offer tomography to assess corneal back surface curvature. First lens power calculation formula was presented in 1967 by Fyodorov, but a systematic pre-cataract biometry with individual lens power calculation started 20 years later with empirical and vergence based formulae such as SRK(2), SRKT, Hoffer-Q, Holladay, and Haigis. Today, most of the modern lens power prediction concepts are undisclosed and available online or integrated in optical biometers. In this course we will give an overview on different biometry modalities and basic lens power calculation concepts and we will discuss the pros and cons critically.

Organizer: **Achim Langenbucher** *(Germany)*
Co-organizer: **Oliver Stachs** *(Germany)*

09:30 Ultrasound and optical biometry before cataract surgery
Oliver Stachs *(Germany)*

09:41 Basics in lens power calculation – from the empirical concept to formula-based calculation and raytracing
Achim Langenbucher *(Germany)*

09:52 Formula constants and optimizations
Achim Langenbucher *(Germany)*

10:03 Calculation of toric lenses and clinical aspects of toric lens implantation
Timo Eppig *(Germany)*

10:14 Lens power calculation after corneal refractive surgery
Jascha Wendelstein *(Switzerland)*

10:25 Lens power calculation in long and short eyes – which formula is the best?
Jascha Wendelstein *(Switzerland)*

10:35 Discussion

09:30-10:45 | Modulo B

SIS NSPH 42 - Challenges in pediatric ophthalmology

This symposium combines anterior and posterior segment questions with respect to pediatric ophthalmology. Both conservative and surgical aspects will be addressed.

Organizer: **Thomas Fuchsluger** *(Germany)*
Co-organizer: **Patrick Yu-Wai-Man** *(United Kingdom)*

09:30 Molecular mechanisms and clinical factors influencing progression of aniridia-associated keratopathy
Nora Szentmary *(Germany)*

09:43 Keratoplasty in children - yes or no, when and how?
T**homas Fuchsluger** *(Germany)*

09:56 Surgical treatment of ectopia lentis in children
Lyubomyr Lytvynchuk *(Germany)*

10:09 When it is not a simple myopia: what is this disease with an XL eye?
Vasily Smirnov *(France)*

10:22 Inherited optic neuropathies – an update
Patrick Yu-Wai-Man *(United Kingdom)*

10:35 Discussion

09:30-10:45 | Hall 3A

RF Rapid Fire 1

09:30-10:45 | Hall 3.1

RF Rapid Fire 2

09:30-10:45 | Hall 3.2

SIS RV 30 - Central serous chorioretinopathy - update

Central serous chorioretinopathy – up date is planned as a SIS. During the session highly recognized specialist on CSCR patomechanism, diagnostics and treatment will share their experience as well as results of their research regarding this clinical entity. As CSCR is a common disorder, but without strong recommendations for its management, the topic seem important for both clinical practice and clinical research. Among specific subjects associated with CSCR are mineralocorticoid pathway concept, modern diagnostic modalities, such as OCT angiography, validation of results of subthreshold micropulse treatment of CSCR and current opinion on utilization of photodynamic therapy in its treatment. Finally, practical algorithms for `CSCR management will be presented.

Organizer: **Maciej Gawęcki** *(Poland)*
Co-organizer: **Andrzej Grzybowski** *(Poland)*

09:30 CSCR-patomechanism and etiology
Francine Behar-Cohen (France)

09:43 CSCR - multimodal diagnostics, recognition criteria. Classification
Stephen Schwartz *(USA)*

09:56 CSCR - treatment with classic and subthreshold lasers
Maciej Gawęcki *(Poland)*

10:09 CSCR - treatment with PDT. Strategies, eligibility
Maurizio Battaglia Parodi *(Italy)*

10:22 CSCR - algorithm for diagnostics and treatment
Kai Jin *(China)*

10:35 Discussion

09:30-10:45 | Modulo 4.1

C EOVS 70 - Basic principles of state-of-the-art ophthalmic instrumentation

Symptoms and signs associated with retinal and retinal ganglion cell pathology are often non-specific and pose a diagnostic challenge. Precise phenotyping may be confounded by the limitations of subjective tests, whereas electrodiagnostic recordings provide objective methods which can localise and characterise dysfunction within the retina. This SIS will provide an update on electrophysiological methods relevant to ophthalmic and neuro-ophthalmic practice, including complementary use of full-field electroretinography, used to assess photoreceptor and inner retinal function, pattern electroretinography, used to assess macular and macular retinal ganglion cell function, and electro-oculography, essential to assess generalised retinal pigment epithelium function. The use of recently published International (ISCEV) standard methods and extended ERG protocols will be highlighted, using case-based examples to illustrate how loci of dysfunction may be identified, aiding diagnosis and clinical management. Recent phenotyping data will be used to show the principles of interpretation, discrepancies between structure and function and the clinical value of electrophysiological testing.

Organizer: **Kristina Irsch** *(France)*
Co-organizer: **Rui Bernardes** *(Portugal)*

09:30 Scanning laser ophthalmoscopy - Basic optical principles
Kristina Irsch *(France)*

09:39 Optical coherence tomography - Basic optical principles
Kristina Irsch *(France)*

09:48 Optical coherence tomography - Additional contrast mechanisms, future trends, and cutting-edge technological developments
Kristina Irsch *(France)*

09:57 Adaptive optics - Basic optical principles
Kristina Irsch *(France)*

10:06 Machine Learning - Basic principles
Rui Bernardes *(Portugal)*

10:15 Machine learning applied to brain imaging data
Miguel Castelo-Branco *(Portugal)*

10:24 Machine learning applied to OCT data from human and mouse models of disease
Rui Bernardes *(Portugal)*

10:33 Discussion

10:45-11:15 | Coffee break

11:20-12:05 | Modulo 2

PS Past President Lecture

11:20 Introduction
Christina Zeitz *(France)*

11:25 Keynote lecture
Andrzej Grzybowski *(Poland)*

11:55 Discussion

12:05-13:20 | Modulo 2

SIS COS 83 - Update on instrument-assisted diagnosis for screening and diagnosis of ectatic corneal disorders

Since the launch of the first Placido topographers in the early 90ties ophthalmologists are assisted with screening and diagnosis metrics for corneal ectatic diseases. Such instruments were restricted to detect early pathological changes at the corneal front surfaces. A decade later, fist Scheimpflug tomographers showed-up which could detect and interpret early changes in the shape of both corneal surfaces together with the corneal thickness profile. Since 15 years high resolution anterior segment OCTs are on the market which have the potential to pathologies in the entire anterior eye segment. In this SIS we will show the fundamentals and development of instrument-based screening and diagnosis metrics for corneal ectatic diseases such as keratoconus, keratoglobus or pellucide marginal degeneration, and we will address quality terms such as precision, accuracy, specificity and sensitivity. New trends of instrument-assisted diagnosis such as indices from the Corvis biomechnic analysis and modern deep learning algorithms will be critically discussed and evaluated in terms of early diagnosis, staging, and monitoring of ectatic corneal disorders.

Organizer: **Achim Langenbucher** *(Germany)*
Co-organizer: **Michael Belin** *(USA)*

16:50 Corneal ectasia in a clinical setting
László Modis *(Hungary)*

17:03 Ectasia screening with the Placido topographer, Scheimpflug tomographer and anterior segment OCTs
Achim Langenbucher *(Germany)*

17:16 Instrument based screening vs. clinical diagnosis – How do modern tomographers assist the ophthalmologist
Michael Belin *(USA)*

17:29 New developments of keratoconus diagnosis with the Corvis biomechanical analysis
Elias Flockerzi *(Germany)*

17:42 AI and deep learning in early keratoconus – Think the unthinkable
Benjamin Fassbind *(Switzerland)*

17:55 Discussion

12:05-13:20 | Modulo B

SIS NSPH 84 - Protect, enhance, restore - novel strategies for the optic nerve rescue

The optic nerve, a crucial component of the visual pathway, plays an essential role in transmitting visual information from the retina to the brain. Damage to the optic nerve can lead to irreversible vision loss and significantly impair quality of life. The need for optic nerve restoration has become increasingly critical as advancements in medical technology and neuroscience highlight the potential for regenerative therapies. Current treatment options are limited, often focusing on managing symptoms rather than addressing the underlying damage. Innovative approaches, including stem cell therapy, neuroprotective strategies, and biomaterial scaffolds, are being explored to promote nerve regeneration and functional recovery. Restoration of optic nerve function not only aims to recover lost vision but also has profound implications for enhancing cognitive processing and overall well-being. As the population ages and the prevalence of optic nerve injuries rises, prioritizing research and development in this field is vital for improving patient outcomes and fostering greater independence for those affected by vision loss.

Organizer: **Adrian Smedowski** *(Poland)*
Co-organizer: **Patrick Yu-Wai-Man** *(United Kingdom)*

12:05 New face of insulin
Adriana Di Polo *(Canada)*

12:21 Fas-pathway inhibition
David Zacs *(USA)*

12:37 Electrostimulation of the optic nerve
Erb Carl *(Germany)*

12:53 CNTF-based RGC rescue
Jeffrey Goldberg *(USA)*

13:09 Discussion

12:05-13:20 | Hall 3A

RF **Rapid Fire 3**

12:05-13:20 | Hall 3.1

RF **Rapid Fire 4**

12:05-13:20 | Hall 3.2

SIS **LC 62 - Myopia controversies and challenges in 2025**

High myopia is a major cause of visual impairment. In the last 60 years, there has been a marked increase in the prevalence of high myopia in developed countries in East and Southeast Asia, and there are signs of similar, but less dramatic increases, in North America and Europe. It is accepted that myopia results from excessive axial elongation of the eye, which appears to be environmentally driven. The session will present major controversies related with myopia pathogenesis and treatment, including progression of myopia in adults, treatment differences between Asian and non-Asians, and challenges, including Low-level Red Light Therapy, and Myopia Calculators.

Organizer: **Andrzej Grzybowski** *(Poland)*
Co-organizer: **Olavi Pärssinen** *(Finland)*

12:05 Historical overview of the studies about epidemiology of myopia
Olavi Pärssinen *(Finland)*

12:18 Incidence and progression of myopia in adulthood
Mohammad Hassan Emamian *(Iran)*

12:31 Treatment differences between Asian and non-Asians
Carla Rita Dos Santos Costa Lança *(United Arab Emirates)*

12:44 RLRL in myopia control - European experience
Andrzej Grzybowski *(Poland)*

12:57 Visual acuity and spherical equivalent calculator
Piotr Artiemjew *(Poland)*

13:10 Discussion

12:05-13:20 | Modulo 4.1

SIS **EOVS 46 - Electrophysiology and the localisation of visual pathway dysfunction**

Symptoms and signs associated with retinal and retinal ganglion cell pathology are often non-specific and pose a diagnostic challenge. Precise phenotyping may be confounded by the limitations of subjective tests, whereas electrodiagnostic recordings provide objective methods which can localise and characterise dysfunction within the retina. This SIS will provide an update on electrophysiological methods relevant to ophthalmic and neuro-ophthalmic practice, including complementary use of full-field electroretinography, used to assess photoreceptor and inner retinal function, pattern electroretinography, used to assess macular and macular retinal ganglion cell function, and electro-oculography, essential to assess generalised retinal pigment epithelium function. The use of recently published International (ISCEV) standard methods and extended ERG protocols will be highlighted, using case-based examples to illustrate how loci of dysfunction may be identified, aiding diagnosis and clinical management. Recent phenotyping data will be used to show the principles of interpretation, discrepancies between structure and function and the clinical value of electrophysiological testing.

Organizer: **Anthony G. Robson** *(United Kingdom)*
Co-organizer: **Omar Mahroo** *(United Kingdom)*

12:05 Generalised RPE dysfunction in adults and children
Dorothy Thompson *(United Kingdom)*

12:21 ERGs in photoreceptor disorders
Anthony G. Robson *(United Kingdom)*

12:37 ERGs in inner retinal disorders.
Omar Mahroo *(United Kingdom)*

12:53 Retinal ganglion cell dysfunction
Magella Neveu *(United Kingdom)*

13:09 Discussion

13:30-14:30

CIS **Industry Sponsored Lunch Symposia**

14:40-15:20 | Modulo 2

KN **De Laey EVER Keynote Lecture**

14:40 Introduction
Patrick Yu-Wai-Man *(United Kingdom)*

14:45 Keynote Lecture
Dan Milea *(France)*

15:15 Discussion

15:20-16:20 | Poster Area

POS **Poster Session 1**

16:20-16:50 | Coffee break

16:50-18:05 | Modulo 2

SIS LC 59 - Restoration of cccommodation

The restoration of accommodation in the pseudophakic eye is still regarded one of the last remaining frontiers in ophthalmology. Decades of principal and applied research resulted in numerous concepts from lens regeneration and lens refilling to electro-optical solutions. Most concepts failed in clinical trials due to a lack of predictability of the refractive outcome or a lack of accommodation in the long term. Additional factors that prevented successful clinical application were lack of usability in terms of requirement for a large incision, bulky implant, and/or generally complicated implantation compared to standard IOLs. Factors preventing commercial success from the manufacturers point of view is a complex production resulting in non-competitive price. We give an overview on the principles and historic and current concepts of accommodative intraocular lenses and lens regeneration and discuss the challenges associated with accommodative IOLs from the regulatory and clinical perspective.

Organizer: **Timo Eppig** (Germany)
Co-organizer: **Justin Christopher D'Antin** *(Spain)*

12:05 History and principles of accommodative intraocular lenses
Timo Eppig (Germany)

12:18 Lens refilling and lens regeneration
Justin Christopher D'Antin *(Spain)*

12:31 Experience with the Phaco-Ersatz System
Rafael I. Barraquer *(Spain)*

12:44 Challenges associated with accommodative systems
Timo Eppig (Germany)

12:57 Experience with the lumina accommodative IOL
Jens Schrecker *(Germany)*

13:10 Discussion

16:50-18:05 | Modulo B

C NSPH 66 - Decoding the scientific headline in ocular neurobiology

In a world where scientific communication is crucial for the dissemination and impact of research, transforming complex findings into accessible messages without compromising accuracy is a challenge. Recognizing this need and building upon the success and excellent feedback of the 'Improve the impact of your eye research with storytelling' session at the last EVER meeting, this proposal outlines the next phase to strengthen our research communication. This hands-on course is designed for researchers in ocular neurobiology who seek to improve their ability to communicate discoveries clearly and effectively. Through interactive exercises, participants will analyze how the media presents science and learn to identify the key elements that ensure information shared with society is both useful and accurate, avoiding misinformation and misconceptions. The course will focus on specific examples from ocular neurobiology, from neural plasticity in the visual system to the effects of light on the retina, emphasizing the importance of precise yet accessible language in scientific outreach. By the end of the course, attendees will have gained tools to better communicate their research, minimizing distortions and fostering a more effective dialogue with the media and the general public.

Organizer: **Victor Meseguer** *(Spain)*
Co-organizer: **Ariadna Diaz-Tahoces** *(Spain)*

16:50 Understanding the media ecosystem for better scientific communication
Angeles Gallar *(Spain)*

17:11 Strategies for clear and accurate scientific communication
Victor Meseguer *(Spain)*

17:32 The challenge of communicating science in ocular neurobiology
Ariadna Diaz-Tahoces *(Spain)*

17:53 Discussion

16:50-18:05 | Hall 3A

FP **Free Paper Session 1**

16:50-18:05 | Hall 3.1

RF **Rapid Fire 5**

16:50-18:05 | Hall 3.2

C **RV 53 - Management of geographic atrophy between AI-assisted multimodal imaging and function**

This course provides a comprehensive approach to managing geographic atrophy (GA) secondary to age-related macular degeneration (AMD) by integrating advanced imaging, artificial intelligence (AI), and functional assessment. Participants will first explore the latest multimodal imaging techniques to enhance detection and monitoring of GA progression. The focus then shifts to the role of AI in quantifying lesion characteristics, tracking changes over time, and predicting disease trajectory. By leveraging AI-driven analysis, clinicians can gain deeper insights into GA evolution and refine monitoring strategies. Finally, the course examines how structural biomarkers correlate with functional vision loss including microperimetry, addressing the impact on patient quality of life and visual performance. Understanding these connections will allow for improved clinical decision-making, patient counseling, and future therapeutic strategies. This program equips clinicians with essential tools to optimize GA management.

Organizer: **Gregor Reiter** *(Austria)*
Co-organizer: **Enrico Borrelli** *(Italy)*

16:50 Multimodal Imaging assessment of GA
Enrico Borrelli *(Italy)*

17:06 Beyond the macula: the role of UWF imaging in geographic atrophy
Daniela Bacherini *(Italy)*

17:22 Artificial intelligence to assess GA lesions and progression
Ambresin Aude *(Switzerland)*

17:38 Linking structure to function in GA
Gregor Reiter *(Austria)*

17:54 Discussion

16:50-18:05 | Modulo 4.1

SIS EOVS 54 - Vision beyond just visual acuity

With the identification of novel targets, the number of interventional clinical trials in ophthalmology has increased. Visual acuity has for a long time been considered the gold standard endpoint for clinical trials, but in the recent years it became evident that other endpoints are required for many indications including geographic atrophy and inherited retinal diseases. Numerous potential surrogate endpoints have been proposed, but their validation remains a complex challenge, requiring robust scientific evidence. In this symposium, we provide an overview of promising clinical endpoints in ophthalmology, with a particular focus on retinal diseases. We explore functional and structural biomarkers, as well as quality of life measures, and critically assess their potential as endpoints in pivotal trials. This highly interdisciplinary symposium brings together leading experts from ophthalmology (Scholl), engineering (Ghezzi), and neuroscience (Herzog). It features clinical findings from large-scale studies in age-related macular degeneration (AMD) and inherited retinal diseases (Scholl), advancements in neuroprostheses (Ghezzi), and extensive visual testing and statistical analysis in both patients and healthy controls (Herzog).

Organizer: **Michael Herzog** *(Switzerland)*
Co-organizer: **Hendrik Scholl** *(Austria)*

16:50 Beyond classic visual testing
Michael Herzog *(Switzerland)*

17:11 Outcome measures to prove functional benefit of changes in retinal imaging
Hendrik Scholl *(Austria)*

17:32 Testing behavioral end-points in naturalistic mazes using virtual and augmented reality
Diego Ghezzi *(Switzerland)*

17:53 Discussion

18:05-18:50

CIS Industry Sponsored Afternoon Symposia

18:50-19:20

Welcome Reception

08:30-09:15 | Modulo 2

KN Soubrane EVER Keynote Lecture

The retinal pigment epithelium (RPE) supports photoreceptors through key functions like outer segment phagocytosis and visual pigment replenishment. Regional differences in RPE sensitivity are implicated in diseases such as age-related macular degeneration (AMD) and choroideremia. However, most in vitro and animal models lack proper macular regions, limiting their disease modeling accuracy. This study aims to generate iPSC-derived macular and mid-peripheral RPE to better model regional RPE degeneration. Using AI-based software (REShAPE), we identified five RPE subpopulations, with P1 representing macular RPE and P3 representing mid-peripheral RPE. We screened 115 developmental pathway-targeting compounds to generate macular and mid-peripheral RPE from iPSCs. The RPE subtypes were assessed through morphology, barrier function, RNA sequencing, metabolism, and complement-induced stress assays. Macular iPSC-RPE displayed sheet-like apical processes, supported cones, relied on glycolysis, and showed higher AMD-like sensitivity. Mid-peripheral iPSC-RPE exhibited finger-like apical processes, supported rods, used oxidative phosphorylation, and were more resilient to stress. This model provides a more physiologically relevant platform for studying retinal diseases, drug screening, and targeted cell replacement therapies.

08:30 Introduction
Lyubomyr Lytvynchuk *(Germany)*

08:35 Macular iPSC derived RPE reproduces regional sensitivity to AMD
Kapil Bharti *(USA)*

09:05 Discussion

09:20-10:35 | Modulo 2

RF Young Investigators Session 1

09:20-10:35 | Modulo B

SIS NSPH 50 - Optic neuropathies - from mechanisms to therapies

Optic neuropathies encompass a diverse group of disorders affecting the retinal ganglion cells and the optic nerve, often leading to irreversible vision loss. Recent advances in genetics, molecular biology, and neuroprotection are transforming our understanding of these conditions and paving the way for novel therapeutic approaches. This symposium will bring together leading experts to explore the latest breakthroughs, from disease mechanisms to innovative interventions. The session will begin with an overview of the expanding genetic landscape of inherited optic neuropathies, highlighting newly identified mutations and their implications for diagnosis and treatment. Next, we will examine how retinal ganglion cells serve as early biomarkers of metabolic and mitochondrial dysfunction in LRRK2 Parkinsonian models, offering insights into neurodegenerative disease intersections. We will then present an update on OPA1 rescue by trans-splicing, a promising strategy to restore mitochondrial function in dominant optic atrophy. Finally, we will introduce the mitoVISION-IQ, a novel tool designed to measure quality of life in clinical trials for inherited optic neuropathies, ensuring that patient-centered outcomes remain at the forefront of therapeutic development. This session will provide a comprehensive view of cutting-edge research in optic neuropathies, bridging fundamental mechanisms with translational and clinical advances.

Organizer: **Neringa Jurkute** *(United Kingdom)*
Co-organizer: **Raoul Kanav Khanna**

09:20 The expanding genetic landscape of inherited optic neuropathies
Claudio Fiorini *(Italy)*

09:36 Use of retinal ganglion cells for early detection of metabolic and mitochondrial dysfunction in LRRK2 Parkinsonian models
Gloria Cimaglia *(United Kingdom)*

09:52 OPA1 rescue by trans-splicing – an update
Aymane Bouzidi *(France)*

10:08 Developing the mitoVISION-IQ for measuring quality of life in clinical trials of inherited optic neuropathies
Benson Chen *(United Kingdom)*

10:24 Discussion

09:20-10:35 | Hall 3A

RF **Rapid Fire 6**

09:20-10:35 | Hall 3.1

RF **Rapid Fire 7**

09:20-10:35 | Hall 3.2

SIS **RV 58 - Retinal fibrosis: molecular mechanisms and emerging therapeutic strategies**

Retinal fibrosis is a major clinical challenge that contributes to vision loss in several retinal diseases, including diabetic retinopathy, age-related macular degeneration (AMD), retinopathy of prematurity, and proliferative vitreoretinopathy. Current therapeutic approaches remain largely ineffective, likely due to a limited understanding of the molecular and cellular mechanisms underlying fibrosis in the retina. This symposium will foster innovative discussion through bringing together experts in retinal cell biology, fibrosis, and translational research to discuss recent advances in understanding the pathophysiology of retinal fibrosis and explore innovative therapeutic strategies. Symposium Objectives: to discuss the molecular and cellular mechanisms of retinal fibrosis; to discuss emerging therapeutic strategies for preventing or treating fibrosis; to foster collaboration between researchers, and clinicians in the field of retinal diseases.

Organizer: **Mohamed AL-Shabrawey** *(USA)*
Co-organizer: **Manuela Bartoli** *(USA)*

09:20 Bone morphogenetic protein signalling and retinal fibrosis
Mohamed AL-Shabrawey *(USA)*

09:3 MicroRNA-21 (miR-21) as a new player in retinal fibrosis
Manuela Bartoli *(USA)*

09:46 A novel approach to target EMT and MMT in retinal fibrosis
Mei Chen *(Ireland)*

09:59 Cellular and molecular tracing of myofibroblast origins in the choroidal neovascularization model of age-related macular degeneration
Katia Corano Scheri *(USA)*

10:12 Role of inflammation in subretinal fibrosis secondary to nAMD
Heping Xu *(China)*

10:25 Discussion

09:20-12:05 | Modulo 4.1

JM **EVER-CORONIS Foundation**

10:35-11:05 | Coffee break

11:05-12:05 | Poster Area

POS **Poster Session 2**

12:10-12:55 | Modulo 2

PS **European Ophthalmic Heritage Lecture**

12:10 Introduction
Jarmila Heissigerova *(Czech Republic)*

12:15 Keynote Lecture
John Forrester *(United Kingdom)*

12:45 Discussion

13:05-14:05

CIS **Industry Sponsored Lunch Symposia**

14:15-15:30 | Modulo 2

RF **Young Investigators Session 2**

14:15-15:30 | Modulo B

SIS

NSPH 89 - Genetic factors and clinical manifestations in developmental eye disorders: the current state and future directions

Over the past 25 years, we have collected a cohort of over 1,000 genetically unexplained families affected with pediatric ocular disorders including early-onset cataract or glaucoma, aniridia/iris hypoplasia, corneal opacities, Axenfeld-Rieger anomaly, complex microphthalmia, and other developmental phenotypes. Through targeted gene sequencing, copy number variation analysis, and exome/genome sequencing in families affected with these disorders, we successfully identified a genetic etiology for ~50% of these families, with varying success rate for specific phenotypes. These studies identified multiple novel genes previously not associated with human disease as well as uncovered novel disease mechanisms or phenotypic extensions for known factors. However, our knowledge regarding the genetic factors involved in developmental ocular phenotypes remains incomplete and we are diligently working to identify new causes, through cutting-edge analyses of sequencing data, functional studies in zebrafish, human cell culture, and iPSC-derived disease models. This presentation will include discussion of novel approaches and exciting new candidates to explain additional families with a broad range of developmental ocular phenotypes with different clinical manifestations.

Organizer: **Elena Semina** *(USA)*
Co-organizer: **Huban Atilla** *(Türkiye)*

14:15 Genetic factors in developmental eye disorders
Elena Semina *(USA)*

14:36 Developmental eye disorders as rare diseases
Dominique Bremond-Gignac *(France)*

14:57 Clinical manifestation of developmental eye disorders
Huban Atilla *(Türkiye)*

15:18 Discussion

14:15-15:30 | Hall 3A

RF

Rapid Fire 8

14:15-15:30 | Hall 3.1

RF

Rapid Fire 9

14:15-15:30 | Hall 3.2

SIS

RV 77 - Saving the macula: novel aspects of pathology and treatment strategies in retinal diseases

Macular preservation remains a critical challenge in the management of retinal diseases, where novel therapeutic strategies are rapidly evolving. This session, "Saving the Macula: Novel Aspects of Pathology and Treatment Strategies in Retinal Diseases," will explore groundbreaking approaches in gene and cell-based therapies, innovative drug delivery methods, and advancements in genetic testing for retinal disorders. Experts from leading institutions will discuss emerging treatments for age-related macular degeneration, stem cell transplantation, and vision restoration techniques. Attendees will gain insight into cutting-edge research and clinical applications, fostering a deeper understanding of how modern ophthalmology is reshaping the future of retinal disease management.

Organizer: **Lyubomyr Lytvynchuk** *(Germany)*
Co-organizer: **Stephen Schwartz** *(USA)*

14:15 The role for genetic testing in AMD care
Stephen Schwartz *(USA)*

14:28 Cell-based therapy of retinal disorders
Kapil Bharti *(USA)*

14:41 Developing a new delivery route for stem- and gene-based therapy of retinal diseases
Lyubomyr Lytvynchuk *(Germany)*

14:54 A model for de novo pigmentation of amelanotic retinal pigment epithelial cells for cell-based therapy
Goran Petrovski *(Norway)*

15:07 How to help patients who losing their vision: update on vision aid
Marc Levy *(USA)*

15:20 Discussion

14:15-15:30 | Modulo 4.1

SIS

EOVS 73 - Vision requirements within demanding work environments

The content and topics of interest we put forward this year are new and reflect the continued importance and wide range of vision standards within visually demanding occupations. Visual performance can be affected by many different stimulus attributes. Vision standards set within each occupation must ensure that those applicants who pass can perform all suprathreshold, safety-critical tasks within that environment as well as normal trichromats (who have no visual / ocular disabilities). Safety cannot be compromised, but safety-critical tasks always employ suprathreshold stimuli that are well above the expected upper normal threshold limits. It is therefore also important to ensure that the standards we set do not discriminate against those applicants with mild deficiencies who are able to carry out visually demanding tasks as well as applicants with normal vision. The papers selected for presentation in this symposium focus on four key aspects of occupational vision that remain controversial.

Organizer: **John Barbur** *(United Kingdom)*
Co-organizer: **Marisa Rodriguez-Carmona** *(United Kingdom)*

14:15 The effects of long-term work in mesopic environments on different aspects of functional vision
Rafaela Garrido Mercado *(Spain)*

14:28 Improvements in colour vision assessment for train drivers
Marisa Rodriguez-Carmona *(United Kingdom)*

14:41 Changes in visual performance at lower light levels
John Barbur *(United Kingdom)*

14:54 Spatial vision following corneal refractive surgery - comparison with multifocal intraocular lenses
Ayşe Özpinar *(Türkiye)*

15:07 Refractive surgery in flying occupations
Frank Jakobs *(Germany)*

15:20 Discussion

15:35-16:15 | Modulo 2

PS Missoten EVER Keynote Lecture

As a Neurologist with an interest in visual disorders I have seen many patients affected by Occipital Lobe disorders. These range from visual loss (hemianopia and cortical blindness) through to positive symptoms and hallucinations. My career has spanned an era where advances in clinical assessment on the one hand and in basic science on the other have resulted in a vast mutually beneficial increase in knowledge. In my talk I hope to convince the EVER community of the continuing benefits to science and to patients of this approach.

15:35 Introduction
Marisa Rodriguez-Carmona *(United Kingdom)*

15:40 40 years with the occipital lobe
Gordon Plant *(United Kingdom)*

16:05 Discussion

16:15-16:45 | Coffee break

16:45-18:00 | Modulo 2

SIS LC 74 - New technologies and innovations in cataract surgery

Cataract surgery is one of the most common and successful surgical procedures performed in the world today. Although cataract surgery is already an extremely safe and effective treatment for visual restoration in patients with cataract, it is constantly evolving and improving with the aim to deliver the best possible clinical outcomes in terms of safety and visual results. In this special interest symposium, we will highlight significant advancements and innovations in cataract surgery, expanding from modern AI-assisted IOL power calculation to digital navigation-assisted implantation of toric IOLs, and from femtosecond laser-assisted cataract surgery to the latest IOL technology. The purpose of this symposium is to provide useful insights into current advancements in cataract surgery not only to novice surgeons, but also to seasoned experts, thereby improving their clinical and surgical practice.

Organizer: **Zisis Gkatzioufas** *(Switzerland)*
Co-organizer: **Andrzej Grzybowski** *(Poland)*

16:45 What AI can add to cataract surgery: update 2025
Andrzej Grzybowski *(Poland)*

16:58 Digital navigation-assisted implantation of toric IOLs
Zisis Gkatzioufas *(Switzerland)*

17:11 Arc stérile: a new surgical space for cataract surgery
Louis Arnould *(France)*

17:24 Evolution of IOL technologies
Mayank Nanavaty *(United Kingdom)*

17:37 Accommodating IOLs, evolution and future
Rafael I. Barraquer *(Spain)*

17:50 Discussion

16:45-18:00 | Modulo B

SIS COS 27 - Neuroimmune crosstalk in the cornea: new insights into sensory and immune interactions

The concept of corneal "immune privilege" has been extensively studied since its initial conception. The cornea is endowed with a significant population of resident immune cells, whose function in ocular physiology extends beyond pathogen defence. Interactions between these immune cells and other corneal components, such as sensory nerves, appear to play a crucial role not only in inflammatory and pathological conditions but also in maintaining corneal homeostasis. In this symposium, we will discuss the latest advances in corneal neuroimmune interactions research and their potential implications for health and disease, presented by leading experts and promising early-career researchers in the field. To encourage the participation of young investigators, one presentation will be selected from the abstracts submitted by early-career researchers in the field.

Organizer: **M. Carmen Acosta** *(San Juan de Alicante)*
Co-organizer: **Laura Frutos-Rincón** *(Spain)*

16:45 Corneal neuropathy: cause or consequence
Reza Dana *(USA)*

17:01 Corneal neuroimmune interactions and pain: unraveling the complex connections
Réaux-Le Goazigo Annabelle *(France)*

17:17 Uncovering functional interactions between dendritic cells and sensory nerves in the healthy cornea
Laura Frutos-Rincón *(Spain)*

17:33 Provisional title: Neuroinflammation: connecting pain and inflammation
Giulio Ferrari *(Italy)*

17:49 Discussion

16:45-18:00 | Hall 3A

RF Rapid Fire 10

16:45-18:00 | Hall 3.1

RF Rapid Fire 11

16:45-18:00 | Hall 3.2

SIS MBGE 48 - Contribution of genetic and environmental factors to the development and protection of myopia

Myopia, also called nearsightedness, is a condition in which objects in the distance are blurred. Both, genetic and environmental factors may cause this condition. Recent findings have shown that myopia is the most common ocular disorder worldwide with an increasing prevalence in the last 40 years. It is predicted that the worldwide prevalence of myopia will increase from the current 25 to 50% in the next three decades, while the prevalence already exceeds 80% in several parts of Asia. Isolated myopia is rare, which represent a non-syndromic severe myopia, which may be associated with cataract and retinal detachment that may lead to blindness. In addition, high myopia may also occur in other rare disorders, e.g. in retinal disorders like retinitis pigmentosa and congenital stationary night blindness. The aim of this symposium is to summarize the knowledge of myopia in respect to clinical aspects of myopia, the identification of candidate genes and environmental factors by genome-wide association studies and by in vivo modeling.

Organizer: **Christina Zeitz** *(France)*
Co-organizer: **Baptiste Wilmet** *(France)*

16:45 Myopia and OCT
Falk Schrödl *(Austria)*

17:01 Importance of phenotyping patients with myopia
Isabelle Audo *(France)*

17:17 Modulation of all- trans retinoic acid by light and dopamine in the murine eye
Machelle Pardue *(USA)*

17:33 Shedding light of myopia using mouse models in inherited retinal disorders
Baptiste Wilmet *(France)*

17:49 Discussion

16:45-18:00 | Modulo 4.1

SIS EOVS 79 - Innovative early-age-related macular degeneration (AMD) phenotyping

The Symposium explores cutting-edge methods for early Age-Related Macular Degeneration (AMD) detection through imaging and computational analysis. The first session introduces the need for Early AMD biomarkers, emphasizing the challenges of applying traditional clinical grading schemes to Optical Coherence Tomography (OCT) images, and closing with clinical implications for early AMD screening and progression monitoring. Lisa Nivison-Smith presents RPE curvature analysis highlighting its correlation with drusen development and its potential for early AMD screening. The next talk by Thomas Peschel focuses on exact drusen masking as ground truth, comparing manual, semi-automated, and fully automated segmentation methods to enhance AMD classification and progression assessment. Marcus Wagner describes feature recognition by descriptomics as innovative early AMD phenotyping. He introduces stereology as a robust method for quantifying drusen volume, providing statistical advantages over binary segmentation. A panel discussion addresses the integration of AI and statistical models, standardization challenges, and clinical translation. The symposium fosters interdisciplinary collaboration to advance AMD phenotyping and precision medicine.

Organizer: **Franziska G. Rauscher** *(Germany)*
Co-organizer: **Marcus Wagner** (Germany)

16:45 Introduction to early AMD biomarkers
Franziska G. Rauscher *(Germany)*

17:01 Retinal pigment epithelium (RPE) curvature as an early AMD biomarker
Lisa Nivison-Smith *(Australia)*

17:17 Exact masking of drusen by desktop application for manual grading of Early-AMD lesions – Precision in AMD segmentation
Thomas Peschel *(Germany)*

17:33 Stereological quantification of drusen morphology - Recognition of Early-AMD lesions in retinal OCT scans by descriptomics
Marcus Wagner *(Germany)*

17:49 Discussion

18:00-18:45 | Modulo 2

GA **General Assembly**

18:45-19:15

BM **Business Meetings**

ACB - COS - EOVS	Modulo 2
G - IM - LC	Modulo B
MBGE	Hall 3A
NSPH	Hall 3.1
PBP	Hall 3.2
PO	Modulo 4.1
RV	

08:30-09:15 | Modulo 2

PS **EVER ACTA Lecture**

08:30 Introduction
Kai Kaarniranta *(Finland)*

08:35 Keynote Lecture
Steffen Heegaard *(Denmark)*

09:05 Discussion

09:15-10:30 | Modulo 2

SIS **MBGE 49 - Disease modelling in inherited retinal disorders**

This session aims to deliver input about disease modelling in inherited retinal disorders

Organizer: **Christina Zeitz** *(France)*
Co-organizer: **Baptiste Wilmet** *(France)*

09:15 Title TBD
Stephen Tsang *(Austria)*

09:31 Title TBD
Olivier Goureau *(France)*

09:47 Title TBD
Mike Cheetham *(United Kingdom)*

10:03 Title TBD
Rossella Valenzano *(The Netherlands)*

10:19 Discussion

09:15-10:30 | Modulo B

C COS 33 - Advanced microscopy techniques in the diagnosis of ocular surface diseases

Diagnosing ocular surface diseases is challenging due to their complexity and variability. Traditional methods, such as slit-lamp biomicroscopy and fluorescein staining, provide limited insights into cellular and subcellular changes in conditions like dry eye, allergic conjunctivitis, and infectious keratitis. These disorders often share overlapping symptoms, complicating accurate diagnosis. Subtle changes, such as glaucoma therapy-induced conjunctival damage, are also difficult to detect with conventional tools. Advanced techniques like in vivo confocal microscopy (IVCM) and scanning electron microscopy (SEM) provide high-resolution imaging of the ocular surface, enabling early detection of cellular abnormalities and pathogens. SEM is especially valuable in assessing infectious keratoconjunctivitis with negative culture results and cases unresponsive to broad-spectrum antibiotics. It also identifies changes in epithelial microvilli, an early biomarker of ocular surface health. However, challenges related to accessibility, expertise, and integration into clinical care limit their use. This course will explore the various microscopy techniques and the use of artificial intelligence in enhancing diagnostic and treatment outcomes.

Organizer: **Mario Troisi** *(Italy)*
Co-organizer: **Salvatore Del Prete** *(Italy)*

09:15 In vivo microscopic approach: the confocal microscopy
Maria Laura Passaro *(Italy)*

09:31 Ex vivo microscopic techniques for ocular infections and microbiome analysis
Salvatore Del Prete *(Italy)*

09:47 Scanning electron microscopy (SEM) applications in dry eye, allergies, and drug tolerability
Mario Troisi *(Italy)*

10:03 Future directions in ocular surface imaging: integrating AI to enhance microscopic diagnostics
Mario Savastano *(Italy)*

10:19 Discussion

09:15-10:30 | Hall 3A

SIS Woman in EVER

09:15-10:30 | Hall 3.1

FP **Free Paper Session 2**

09:15-10:30 | Hall 3.2

C **G 32 - Why gonioscopy still remains essential in the time of anterior segment OCT**

Besides the examination of optic nerve head and retinal nerve fiber bundles, gonioscopy is the most important examination we have when performing structure analysis. The differentiation between angle closure, angle closure suspect and open angle is essential not only for the correct diagnosis, but as well in order to draw the best therapeutic consequences out of these findings. In addition to grading systems that help us to classify the types of glaucoma, we can find pathological changes like abnormal vessels, inflammatory induced changes, pigmentations, clefts etc. that help us to make the right diagnosis and therapy. Nowadays, AS-OCT is a big help and makes it a lot easier, but there are still essential deficits, that do not allow to replace gonioscopy completely by this new examination. In this course, we will show what we can see in normal and pathological eyes and which findings can be observed in AS-OCT and which cannot. We will also explain how a state of the art gonioscopy examination is performed.

Organizer: **Anton Hommer** *(Austria)*
Co-organizer: **Doreen Schmidl** *(Austria)*

09:15 Normal findings
Nikolaus Hommer *(Austria)*

09:36 Abnormal findings
Anton Hommer *(Austria)*

09:57 Comparison AS-OCT and others vs. gonioscopy
Doreen Schmidl *(Austria)*

10:18 Discussion

09:15-10:30 | Modulo 4.1

C **IM 68 - Controversies in ocular inflammation**

This session will explore key debates in the diagnosis and management of ocular inflammatory diseases, examining the evolving role of imaging modalities and treatment strategies. Experts will discuss whether fluorescein angiography remains essential in the era of OCT angiography, the necessity of indocyanine green angiography in diagnosing Birdshot chorioretinopathy, and the choice between systemic and local therapy in ocular lymphoma. Additionally, we will assess whether multimodal imaging can replace traditional clinical examination and if local therapies can serve as alternatives to conventional immunosuppression. Through case-based discussions and interactive debates, this session will challenge current paradigms and provide insights into optimizing patient care in ocular inflammation.

Organizer: **Ester Carreño Salas** *(Spain)*
Co-organizer: **François Willermain** *(Belgium)*

09:15 Can multimodal imaging substitute clinical examination?
Will Tucker *(United Kingdom)*

09:28 Is dye really needed today? Fluorescein angiography vs OCTA
Ester Carreño Salas *(Spain)*

09:41 Is ICG mandatory in birdshot chorioretinopathy?
Colin Chu *(United Kingdom)*

09:54 Can local therapy substitute conventional immunosuppression?
François Willermain *(Belgium)*

10:07 Lymphoma: systemic or local therapy?
Jarmila Heissigerova *(Czech Republic)*

10:20 Discussion

10:30-11:00 | Coffee break

11:00-12:00 | Poster Area

POS **Poster Session 3**

12:05-12:50 | Modulo 2

PS **Ophthalmic Research Lecture**

12:05 Introduction
Hendrik Scholl *(Austria)*

12:10 Keynote lecture
Bart Leroy *(Belgium)*

12:40 Discussion

13:00-14:00

CIS **Industry Sponsored Lunch Symposia**

14:10-15:25 | Modulo 2

SIS **MBGE 55 - Genomic DNA and Single-cell sequencing technologies**

Systems biology and big data are rapidly transforming biomedical science. This joint course, organized by MGBE and ABC, introduces advanced technologies used in genomic DNA and single-cell research. The course covers key methodologies, including exome and genome sequencing for monogenic diseases, long-read genome sequencing for rare disease diagnostics, and single-cell RNA sequencing (scRNA-seq) alongside chromatin accessibility analysis (ATAC-seq). Participants will gain insights into the applications and interpretation of these technologies in biomedical research.

Organizer: **Joni Turunen** *(Finland)*
Co-organizer: **Heli Skottman** *(Finland)*

14:10 Exome and genome sequencing in monogenic diseases
Mathieu Quinodoz *(Switzerland)*

14:31 Rare disease diagnostics with long-read genome sequencing
Stephan Ossowski *(Germany)*

14:52 Single-cell RNA sequencing (scRNA-seq) and assay for transposase-accessible chromatin using sequencing (ATAC-seq) analyses
Jo Zhou *(The Netherlands)*

15:13 Discussion

14:10-15:25 | Modulo B

SIS

COS 60 - Tear fluid biomarkers of the ocular surface: diagnostics, immunology and methodology

Tear fluid is emerging as a source of non-invasive biomarkers since tear fluid biomarkers are the only way to gather biological information about the ocular surface in real time. During this Special Interest Group session, presentations will explore the diagnostic value of these biomarkers in limbal stem cell deficiency and dry eye disease, as well as their significance in ocular immunology. A critical overview of current research methodologies will address common practices and challenges in the field. Furthermore, the session will introduce recent insights into tear fluid miRNAs, discussing their potential applications in non-invasive diagnostics. Overall, the programme aims to stimulate thoughtful discussion on the interdisciplinary links between ocular surface biology and immunology, with an emphasis on clinical relevance and future research directions.

Organizer: **Piera Versura** *(Italy)*
Co-organizer: **Marlies Gijs** *(The Netherlands)*
Co-organizer: **Amalia Enriquez de Salamanca** *(Spain)*

14:10 The role of tear fluid biomarkers in limbal stem cell deficiency
Clemence Bonnet *(USA)*

14:23 Tear fluid biomarkers in ocular immunology
Antonio Di Zazzo *(Italy)*, Alessandra Micera *(Italy)*

14:36 Advances in tear fluid biomarkers for dry eye disease
Christophe Baudouin *(France)*

14:49 Methodology of tear fluid biomarker research: common practices and challenges
Marlies Gijs *(The Netherlands)*

15:02 Tear fluid biomarkers for ocular pain
Amalia Enriquez de Salamanca *(Spain)*

14:10-15:25 | Hall 3.1

FP

Free Paper Session 3

14:10-15:25 | Hall 3.1

C PO 65 - Identifying histopathological lesions in AMD: BLamD, BLinD, and soft drusen for research and clinical practice

This course provides an in-depth examination of histopathological lesions associated with age-related macular degeneration (AMD), including basal laminar deposit (BLamD), basal linear deposit (BLinD), and soft drusen. Participants will learn to identify these lesions in tissue samples through case-based learning and practical insights applicable to research, post-mortem examinations, and pathology practice. The session combines didactic presentations, panel discussions, and audience interaction to ensure comprehensive learning. At the conclusion of this course, the attendee will be able to: 1. identify and differentiate BLamD, BLinD, and soft drusen in histological samples; 2. understand the significance of these lesions in AMD progression and research contexts; 3. Apply histological diagnostic techniques to improve post-mortem examination and pathology reporting; 4. recognise challenges and limitations in identifying AMD-associated lesions and discuss solutions; 5. Utilise structured reporting templates for these lesions in clinical and research practice.

Organizer: **Svetlana Cherepanoff** *(Australia)*
Co-organizer: **Mitchell Lee** *(Australia)*

14:10 Introduction & overview
Svetlana Cherepanoff *(Australia)*

14:26 Techniques for identifying AMD lesions in tissue
Cheryl Au *(Australia)*

14:42 Title TBD

14:58 Title TBD

15:14 Discussion

14:10-15:25 | Hall 3.2

SIS G 81 - Back to big surgery

Glaucoma, a leading cause of irreversible blindness worldwide, necessitates effective management strategies to preserve vision and quality of life. Despite advances in pharmacological treatments, some patients experience inadequate intraocular pressure (IOP) control or suffer from medication side effects. Surgery offers significant advantages over medical management for glaucoma patients, particularly in those with advanced or refractory disease. Filtration surgery presents notable advantages over minimally invasive glaucoma surgery (MIGS) for treating glaucoma, especially in cases of advanced or poorly controlled disease. One of the key benefits of filtration surgery is its effectiveness in achieving substantial and sustained reduction in intraocular pressure (IOP), often surpassing the levels attainable through MIGS. Furthermore, filtration surgery typically provides a longer-lasting solution, with the potential for fewer reoperations compared to MIGS, which may require additional procedures over time to maintain IOP control. Additionally, filtration surgery has a well-established track record and comprehensive understanding of postoperative management, whereas MIGS, being newer, may have varying outcomes that are still being studied. By offering robust IOP control and durability in treatment outcomes, filtration surgery remains a cornerstone in the management of glaucoma.

Organizer: **Adrian Smedowski** *(Poland)*
Co-organizer: **Miriam Kolko** *(Denmark)*

14:10 Back to big surgery
Adrian Smedowski *(Poland)*

14:26 Back to trabeculectomy
Carlo Traverso *(Italy)*

14:42 Back to tubes
Karl Mercieca *(Germany)*

14:58 Back to deep sclerectomy
Cédric Schweitzer *(France)*

15:14 Discussion

14:10-15:25 | Modulo 4.1

SIS IM 72 - How nutrition and dysbiosis are implicated in uveitis; therapeutic opportunities

This symposium will outline the cellular, hormonal, immune, and neural signalling mechanisms that link the gut microbiome, immune system, and eye health focussing on uveitis. We will explore some of the research related to microbiota imbalance and the association with inflammatory conditions that can affect the eye, and the use of probiotics and prebiotics as potential treatment for managing ocular inflammatory conditions. We will also discuss how nutrition and lifestyle impact systemic and ocular health by exploring the effects of Western diet, sedentary lifestyle, stress and disrupted sleep on gut microbiota and metabolic health, and how these factors result in insulin resistance, mitochondrial dysfunction, and systemic and ocular inflammation. We will conclude with an overview of the socioeconomic determinants of health, and associated discrepancies in visual impairment and eye care services, and discuss how food insecurity and nutritional inequalities can lead to ocular diseases.

Organizer: **Ester Carreño Salas** *(Spain)*
Co-organizer: **François Willermain** *(Belgium)*

09:15 Can multimodal imaging substitute clinical examination?
Will Tucker *(United Kingdom)*

09:28 Is dye really needed today? Fluorescein angiography vs OCTA
Ester Carreño Salas *(Spain)*

09:41 Is ICG mandatory in birdshot chorioretinopathy?
Colin Chu *(United Kingdom)*

09:54 Can local therapy substitute conventional immunosuppression?
François Willermain *(Belgium)*

10:07 Lymphoma: systemic or local therapy?
Jarmila Heissigerova *(Czech Republic)*

10:20 Discussion

SATURDAY
11 OCTOBER 2025

15:25-15:55 | Coffee break

16:00-16:45 | Modulo 2

PS European Academy of Ophthalmology Lecture

12:05 Introduction
Hendrik Scholl *(Austria)*

12:10 Keynote Lecture
Bart Leroy *(Belgium)*

12:40 Discussion

16:45-18:00 | Modulo 2

SIS MBGE 56 - Recent breakthroughs in the genetics of inherited retinal diseases

This session aims to deliver input about disease modelling in inherited retinal disorder.

Organizer: **Joni Turunen** *(Finland)*
Co-organizer: **Christina Zeitz** *(France)*

16:45 Genetic discoveries in inherited retinal diseases in Finland
Joni Turunen *(Finland)*

17:01 Novel gene defect identification in inherited retinal disease
Christina Zeitz *(France)*

17:17 Structural variants causing retinal dystrophies
Alison Hardcastle *(United Kingdom)*

17:33 Variants in U4 and U6 small nuclear RNA genes cause retinitis pigmentosa
Mathieu Quinodoz *(Switzerland)*

17:49 Discussion

16:45-18:00 | Modulo B

SIS COS 75 - New technologies and innovations in corneal surgery

Corneal surgery has evolved rapidly over the last years. The introduction and refinement of lamellar transplantation techniques, as well as advancements in tissue bioengineering and regenerative medicine have revolutionized corneal transplantation surgery. Moreover, translational research has contributed enormously towards the fabrication of artificial corneal transplants. Finally, employment of modern technology, such as the use of femtosecond laser, together with technological innovations including intraoperative optical coherence tomography or 3D head-up surgery, provided increased precision and safety, particularly in complex cases.
In this special interest symposium, we provide useful insights into new technologies and innovations in corneal surgery, aiming to improve the clinical and surgical practice of both novice surgeons and seasoned experts in the field.

Organizer: **Zisis Gkatzioufas** *(Switzerland)*
Co-organizer: **Thomas Fuchsluger** *(Germany)*

16:45 Current approaches in corneal endothelial bioengineering
Gilles Thuret *(France)*

16:58 Artificial cornea – Where are we standing?
Thomas Fuchsluger *(Germany)*

17:11 Intraoperative OCT applications in corneal surgery
Zisis Gkatzioufas *(Switzerland)*

17:24 Femtosecond laser applications in corneal transplantation
Mohamed Elalfy *(Egypt)*

17:37 Novel surgery for acute corneal hydrops
Arne Viestemz *(Germany)*

17:50 Discussion

16:45-18:00 | Hall 3A

SIS LC 71 - Learning ophthalmic surgery in virtual reality

Virtual reality training is mandatory in the flight industry and is increasingly becoming mandatory for surgical training in medicine. The SIS will cover principles of motor skill learning, skill monitoring, expected evolution of skill during motor skill learning, and challenges in cataract surgery. Then, the technology behind ophthalmic virtual reality surgery will be presented. Subsequently, the development and experience of introducing virtual reality training as a mandatory step before ophthalmic surgery in patients, will be covered. Thereafter, strategies for and experience of measuring evidence for improvement of surgical skill with virtual reality training of cataract surgery will be presented. Finally, evidence for improvement of ophthalmic surgical skill will be presented. A simulator for virtual reality cataract surgery will be made available at the meeting for trial sessions.

Organizer: **Per Soderberg** *(Sweden)*
Co-organizer: **Ann Sofia Skou Thomsen** *(Denmark)*

16:45 Principles of motor skill learning and challenges in learning cataract surgery
Per Soderberg *(Sweden)*

16:58 The technology behind ophthalmic virtual reality surgery
Eva Skarman *(Sweden)*

17:11 Introducing virtual reality training as a mandatory step before surgery in patients
Ann Sofia Skou Thomsen *(Denmark)*

17:24 Measuring evidence for improvement of skill with virtual reality training
Zhaohua Yu *(Sweden)*

17:37 Evidence for improved surgical skill after virtual reality training
Amalie Carlsson *(Denmark)*

17:50 Discussion

16:45-18:00 | Hall 3.1

SIS Young Ophthalmologists and Vision Researchers Session EVER

16:45-18:00 | Hall 3.2

C PO 69 - Scaling of Fundoscopy Images: optical origins, correction methods and impact on clinical studies

Fundus photography is widely used in ophthalmology for diagnosing and monitoring retinal diseases. However, due to individual variations in ocular anatomy and optics, refraction introduces scaling differences that prevent accurate distance measurements on individual fundus images. In this course, we will introduce the optical principles underlying these scaling variations and discuss various methods to correct them, incorporating impacts from ocular anatomy as well as camera design. Furthermore, we will present straightforward phantoms that can be used to calibrate your own camera. The course will then demonstrate the clinical and scientific relevance of these corrections in different contexts of research and clinical routine, for example, by improving the quantification of patchy chorioretinal atrophy in highly myopic patients. Importantly, we will also explain methods for correction in longitudinal studies or when following patients over time, this includes facilitating the impact of emmetropization. Finally, we will examine recent advancements aimed at extending these correction methods to the entire retina, with a particular focus on their applications in radiotherapy planning for ocular tumors, where precise localization is critical for treatment success.

Organizer: **Jan-Willem Beenakker** *(The Netherlands)*
Co-organizer: **Rebekka Heitmar** *(United Kingdom)*

16:45 Understanding and correcting for scaling of fundus photographs
Jan-Willem Beenakker *(The Netherlands)*

17:01 Impact of emmetropization and refractive errors on fundus images
Rebekka Heitmar *(United Kingdom)*

17:17 Correcting for changes in refractive error in longitudinal studies
Franziska G. Rauscher *(Germany)*

17:33 Peripheral images scaling of fundus photographs and their implications in ocular oncology
Corné Haasjes *(The Netherlands)*

17:49 Discussion

16:45-18:00 | Modulo 4.1

SIS ACB 57 - Advancing our understanding of corneal diseases with human cell-based approaches

Session will showcase a series of research examples highlighting the critical role of human cell-based models in understanding and treating corneal diseases. Each presentation will demonstrate why and how these models are indispensable tools for studying corneal development, unravelling disease mechanisms, and exploring potential therapeutic interventions. By delving into these innovative methodologies, the session aims to underscore the importance of human cell-based models in advancing our knowledge and treatment of corneal diseases.

Organizer: **Heli Skottman** *(Finland)*
Co-organizer: **Jo Zhou** *(The Netherlands)*

16:45 Immortalized cell lines from primary aniridia limbal epithelial cells as models for congenital aniridia
Nora Szentmary *(Germany)*

17:01 Transcriptional profiling of NLRP3 inflammasome-activated monocytes in keratitis fugax hereditaria
Sabita Kawan *(Finland)*

17:17 Single-cell RNA-seq on human cornea organoids
Dulce Lima Cunha *(The Netherlands)*

17:33 Harnessing human pluripotent stem cells for corneal tissue modeling
Heli Skottman *(Finland)*

17:49 Discussion

18:05-18:40 | Modulo 2

PS **Prize Award Ceremony and Closing Remarks**

18:40-19:10
Farewell Reception