

EAsDEC

EUROPEAN ASSOCIATION FOR
DIABETIC EYE COMPLICATIONS



33rd EAsDEC MEETING

COIMBRA – PORTUGAL

JUNE 1-3, 2023

AIBILI
ORGANIZING INSTITUTION

Welcome



Dear Colleagues and Friends,

It is my true delight to welcome you back in Coimbra, the birth of EAsDEC! Thirty-four years ago, in a meeting that took place in this same city, Prof. Cunha-Vaz and colleagues decided to start a new subgroup of the EASD for the study of Diabetic Retinopathy and other Ocular Complications of Diabetes. As a result, EAsDEC meetings were born and have evolved ever since, focusing on the study of the diabetic eye.

This year, AIBILI has organized the 33rd EAsDEC Meeting where we hope to update you on clinical and fundamental research, sharing knowledge from all parts of the world. We have prepared stimulating talks on pathophysiology, epidemiology, clinical research, and treatment amongst other topics, of diabetic retinopathy and diabetic macular edema.

Coimbra is one of the main cities in Portugal. It hosts the oldest Portuguese University, and one of the oldest in the world, dated 1290.

Also, our meeting venue, “Quinta das Lágrimas” (Estate of Tears), is where one of the most famous love stories took place. Prince Pedro and Ines de Castro lived a love affair outside of his marriage. His father, King Afonso IV, never accepted it. When Prince Pedro became a widower, his father ordered the murder of Ines de Castro. Prince Pedro never forgave his father and, after being crowned king, in 1357, had her murderers arrested and killed, and Ines de Castro body dug up and crowned posthumously as Portugal’s Queen. The legend has it that the blood of Inês de Castro flows in the “Fonte dos Amores” (the Love Fountain), here at “Quinta das Lágrimas”, hence the reddish tinge in the fountain stones.

So, in this city, where stories and history melt together, we look forward to seeing you and to have the opportunity of establishing connections and collaborations for the study of diabetic retinopathy.

Welcome to Coimbra!

Inês Pereira Marques, M.D., Ph.D.
Director of the Clinical Trials Centre
AIBILI, Coimbra, Portugal
Chair, Local Organizing Committee

EAsDEC Board Members
Tunde Peto – President
Ingeborg Klaasen – Vice President
Rafael Simó – Past President
Reinier Schlingemann – Treasurer
Stela Vujosevic – Secretary

PROGRAMME

THURSDAY – 1st JUNE 2023

- 16:00 **Registration**
- 16:30-18:45 **Symposium: Treatment of vision threatening complications
Chairs**
- Inês Marques and João Figueira
- 16:40-17:00 New treatment strategies in diabetes – is artificial pancreas feasible? –
Daniela Guelho/Sofia Monteiro
- 17:00-17:15 Biomarkers to determine if steroids vs anti-VEGF agents are more
appropriate to treat DME – **Lilianne Duarte**
- 17:15-18:10 **What is new in diabetic macular edema treatment?**
- Faricimab – **Keissy Sousa**
 - Aflibercept – **Sérgio Leal**
 - Fluocinolone acetonide – **Miguel Ruão**
 - Dexamethasone – **Bernardete Pessoa**
- 18:10-18:30 **Therapeutic targets in non-proliferative and proliferative diabetic
retinopathy**
- sCG activators and neuroprotection – **Isabel Pires**
 - Real World Evidence: Protocol W/ Panorama Study – **João Figueira**
- 18:30-18:45 Discussion
- 18:45 **Official Opening of EAsDEC Conference**
- Inês Marques and Tunde Peto

WELCOME RECEPTION

Fingerfood and soft drinks

FRIDAY – 2nd JUNE 2023

- 8:30 **Registration**
- 8:45 **Introduction and Welcome**
Inês Marques and Tunde Peto
- 9:00-10:15 **SESSION 1**
The latest in translational research in diabetic eye disease
Moderators: Ying Chen and Noëlle Bakker
- 9:00-9:09 **Elena Beltramo (Italy):** Release of pro-inflammatory/angiogenic factors by retinal microvascular cells is mediated by extracellular vesicles derived from M1-activated microglia
- 9:09-9:18 **Francisco Martín-Loro (Spain):** A marine bioinspired molecule modulates the diabetic retinopathy progression by M2 response-induction and promote the inflammatory resolution
- 9:18-9:27 **Paola Serrano Martinez (Netherlands):** The role of adrenomedullin in the regulation of angiogenesis and endothelial barrier function
- 9:27-9:36 **Daria Fresia (Switzerland):** Hypoglycemia induces autophagy in the mouse retina
- 9:36-9:45 **Christopher Kelsall (UK):** Examining (i) microvascular responsiveness to locally delivered glucagon-like peptide-1 analogue, liraglutide; and (ii) the glycocalyx in individuals with type 2 diabetes and retinopathy
- 9:45-9:54 **Noëlle Bakker (Netherlands):** Histopathological changes in the retinal neurovascular unit during progression of diabetic retinopathy
- 9:54-10:15 **Winner of the Anne-Katrin Sjolie Best Abstract Student Prize:**
Mona Albargothy (UK): Investigation of the retinal neurovascular unit in diabetic retinopathy using 3D electron microscopy
- 10:15-11:15 **SESSION 2**
Symposium: Imaging retinal ischemia can change the way of monitoring and staging of diabetic retinopathy
Moderators: Simon Harding and Ana Rita Santos
- 10:15-10:30 **Widefield Imaging contributes to re-classification of DR severity – Tunde Peto**
- 10:30-10:45 **Multimodal Imaging for detection of DR lesions – Inês Marques**
- 10:45-11:00 **New OCT biomarkers of OCTA for staging of DR – Ana Rita Santos**

- 11:00-11:15 Challenges of OCTA utilization in the study of DR: standardization and development of reliable metrics – [Stela Vujosevic](#)
- 11:15-11:45 **Coffee break**
- 11:45-12:40 **SESSION 3**
Aspects of managing patients with diabetic eye disease
Moderators: Stela Vujosevic and Miguel Ruão
- 11:45-11:54 [Patrice Fort \(USA\)](#): The Mary Tyler Moore Vision Initiative Diabetic Retinal Diseases Biorepository and Resource Center
- 11:54-12:03 [Rafael Simó \(Spain\)](#): Rapid reduction of HbA1c and early worsening of diabetic retinopathy: A real-world population-based study in subjects with type 2 diabetes
- 12:03-12:12 [Anne Suhr Thykjær \(Denmark\)](#): Development of diabetic retinopathy in relation to bariatric surgery: a nationwide study
- 12:12-12:21 [Kiran Shah \(India\)](#): Patients with Type 2 diabetes who have non-alcoholic fatty liver disease are less likely to have diabetic retinopathy
- 12:21-12:30 [James Talks \(UK\)](#): Early uptake and treatment patterns of Faricimab among Diabetic Macular Edema (DME) patients in the UK
- 12:30-12:39 [Miguel Ruão \(Portugal\)](#): RIVER Study – registry data on the use of intravitreal fluocinolone acetonide implant for diabetic macular edema in Portugal
- 12:40 **LUNCH** (poster presenters have priority for lunch)
- 12:55 **SESSION 4: POSTER SESSION**
Basic science and imaging
Moderators: Jakob Grauslund and Kiran Shah
- [Fátima Cano-Cano \(Spain\)](#): Associations between serum inflammatory mediators and spectral-domain (SD) OCT parameters in T1 Diabetes Mellitus and Multiple Sclerosis patients
- [Ying Chen \(Germany\)](#): MDM2 knockout in pericytes prevents mouse diabetic retinopathy
- [Jihong Lin \(Germany\)](#): miRNA-124 prevents rat diabetic retinopathy by inhibiting the microglial inflammatory response
- [Alessandra Loda \(Italy\)](#): eparinbinding mediators drive the resistance to anti-VEGF therapies in diabetic retinopathy

Laura Cushley (UK): The NaviSight Study: An investigation into the peripheral retina in diabetes and navigating the built environment

Ali Sharif (Sweden): Inter-observer reliability of counting retinal microaneurysms and haemorrhages in elderly with diabetes

Débora Reste-Ferreira (Portugal): Abnormal retinal fluid in eyes with diabetic macular edema

Marta Lopes (Portugal): Non-invasive characterization of intraretinal microvascular abnormalities with Widefield Swept Source OCTA imaging

Ana Rocha (Portugal): CLARUS (or Wide-Field Fundus Imaging) improves ETDRS grading with classic 7-fields fundus photographs

Clinical studies

Moderators: Anne Suhr Thykjær, Bénédicte Dupas, David Keegan, Sema Tamer Kaderli

Katie Curran (UK): Diabetic retinopathy progression among children and young adults with Type 1 diabetes in India

Mohammed Zayed (UK): The relationship between visual function and severity of diabetic retinopathy

Nicola Parker (UK): Follow-up and management of patients with diabetes with neovascular glaucoma referred from the Northern Ireland Diabetic Eye Screening Programme in 2015-2016

Shweta Pandey (UK): Introduction of Virtual Eye Clinics to reduce delayed follow up waiting times following Covid-19 pandemic

Jeonghoon Ahn (Switzerland): Economic impact of Fenofibrate among the Chinese patients with Diabetic Retinopathy

Davis Preiss (UK): Visual function and quality of life in people with diabetic retinopathy: insights from the LENS trial

Ellen Steffenssen Sauesund (Norway): A pilot study of implementing diabetic retinopathy screening in the region of Oslo, Norway: baseline results

Frederik Pedersen (Denmark): Associations between metabolic and structural retinal parameters and depression score in individuals with type 2 diabetes

Jonathan Nairn (UK): Performance of "treat and extend" anti-VEGF therapies (Aflibercept, Ranibizumab) used for diabetic macular oedema in West of Scotland at 1 year

James Brodie (UK): Is diabetic retinopathy screening worthwhile among people first diagnosed with diabetes at older ages? Cohort study of Norfolk Diabetic Retinopathy Screening Programme

Aditi Chaturvedi (Ireland): The effects of reminder and information letters on non-attendance to a Diabetic Retinopathy Screening Clinic for pregnant patients

Catherine Jamison (UK): Prevalence and severity of retinopathy and maculopathy in people with diabetes mellitus before and after hospital admission due to COVID-19 in the first wave of the pandemic (March–June 2020)

Lika Tsutskiridze (Georgia): The role of regular screening program and the involvement of international organizations for the successful implementation of the project

Florian Toti (Albania): Prevalence of diabetic retinopathy and related risk factors in patients with diabetes in Tirana district, Albania

Natalia Palarie (Moldova): Lipid metabolism biomarkers in diabetic retinopathy in patients with Type 1 diabetes mellitus

Romano Vrabec (Croatia): Association between ganglion cell-inner plexiform layer in Type 2 Diabetes with and without retinopathy and its correlated systemic risk factors

Alexandr Khudyakov (Russia): Optimal choice of gas or silicone tamponade for surgical treatment advanced stages of proliferative diabetic retinopathy patients

Natalia Pomytkina (Russia): Detection of early worsening of diabetic retinopathy in pregnant patients with diabetes using OCT angiography

Dmitry Lipatov (Russia): Long-term results of drainage surgery of neovascular glaucoma in patients with diabetes mellitus

14:40–15:55 **SESSION 5**

Results from clinical research around Europe

Moderators: Ben Charmer and Noemi Lois

14:40–14:49 **Martina Tomic (Croatia):** High prevalence of vision-threatening diabetic retinopathy at the first fundus examination in Croatia

14:49–14:58 **Jakob Grauslund (Denmark):** Onset and progression of diabetic retinopathy within eight years in type 1 diabetes in the Danish Registry of Diabetic Retinopathy

14:58–15:07 **Noemi Lois (UK):** Prognostic factors for the development and progression of proliferative diabetic retinopathy (PDR)

15:07–15:16 **David Keegan (Ireland):** Results of the two-year screening interval initiative within the Irish National Diabetic Retinopathy Screening Programme (RetinaScreen)

15:16–15:25 **Tunde Peto (UK):** 5-Year outcomes for DME following anti-VEGF treatment: Multicentre analysis in the UK

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- 15:25-15:34 **Ben Charmer (UK):** 10-year outcomes of patients referred with proliferative diabetic retinopathy from the United Kingdom diabetic retinopathy screening service
- 15:34-15:49 **Simon Harding (UK):** Impact on blindness of organized diabetic retinopathy screening including artificial intelligence (AI) and optical coherence tomography (OCT) in urban China – a lifetime cost effectiveness analysis
- 15:55-16:40 **EVA KOHNER Lecture**
Professor Rafael Simó, Vall d'Hebron Research Institute, Barcelona, Spain: Neurovascular Unit impairment in Diabetic Retinopathy: Clinical and therapeutic implications
Introduced by: Tunde Peto
- 16:45 **ANNUAL GENERAL MEETING**
- 19:00 **CONFERENCE DINNER**
Quinta das Lágrimas Hotel with Live Music: Fado

SATURDAY – 3rd JUNE 2023

- 8:30 **Registration**
- 9:00-10:00 **SESSION 6**
Imaging diabetic eye diseases
Moderators: Torcato Santos and Reinier Schlingemann
- 9:00-9:09 **Recivall Salongcay (UK):** Accuracy of point of care artificial intelligence grading using handheld retinal imaging in a community-based Diabetic Eye Screening Programme
- 9:09-9:18 **Bénédicte Dupas (France):** Screening for TelCaps by OCT thickness mapping in patient with diabetic macular edema
- 9:18-9:27 **Torcato Santos (Portugal):** Abnormal fluid accumulation in the diabetic retina quantified by OCT-Leakage
- 9:27-9:36 **Sema Tamer Kaderli (Turkey):** Sensitivity and specificity of the optical coherence tomography angiography for detection of neovascularization and evaluation of peripheral ischemia in diabetic retinopathy
- 9:36-9:45 **Inês Marques (Portugal):** Swept-source OCTA discriminates severity staging of NPDR: The CHART Study

9:45-9:54 **Ana Almeida (Portugal):** Combination of ultra-widefield colour fundus photography and Optical Coherence Tomography Angiography identify different subtypes of non-proliferative diabetic retinopathy

10:00 - 10:50 **SESSION 7**

Laboratory and translational research in diabetic eye disease

Moderators: Francisco Ambrósio and Ingeborg Klaassen

10:00-10:15 Non-canonical anti-inflammatory effects of sitagliptin on (retinal) microglia – **Francisco Ambrósio**

10:15-10:24 **Rosa Fernandes (Portugal):** Tear fluid proteins analysis from donors with diabetes and diabetic retinopathy (DR)

10:24-10:33 **Ingeborg Klaassen (Netherland):** Variations in genetic profile as predictors of anti-VEGF treatment response in conditions with macular oedema

10:33-10:48 The non-coding genome in human disease and why it matters to understand the genetics of diabetic retinopathy – **José Bessa**

10:50-11:20 **Coffee break**

11:20-12:46 **SESSION 8**

Biomarkers and artificial intelligence

Moderators: José Cunha-Vaz and Maria Vittoria Cicinelli

11:20-11:40 Phenotypes and biomarkers of retinopathy progression type 2 diabetes – **José Cunha-Vaz**

11:40-11:49 **Ana I. Arroba (Spain):** Differential pattern of biomarkers between early and advance stage in patients with Type 1 diabetes with diabetic retinopathy

11:49-11:58 **Luís Mendes (Portugal):** Automated discrimination between eyes with mild and moderate non-proliferative diabetic retinopathy

11:58-12:07 **Maria Vittoria Cicinelli (Italy):** Rate and predictors of misclassification of diabetic macular edema as detected by the artificial intelligence EyeArt system

12:07-12:16 **David Wong (UK):** Adaptive Comparative Judgement as a basis for a machine learning algorithm for diabetic retinopathy screening

12:16-12:46 Cardiovascular disease in diabetes – **Pedro Monteiro**

12.50-13.00 **BEST POSTER PRIZE CEREMONY and CLOSING REMARKS**

Inês Marques and Tunde Peto

We see more, together™

Alimera Sciences is a global pharmaceutical company whose mission is to be invaluable to patients, physicians and partners concerned with retinal health and maintaining better vision longer.

Come and visit us at our booth,
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Date of preparation: May 2023. PT-ILV-MMM-0439



ADVERTISING



Where Two Worlds Meet

Shift the paradigm in nAMD and
DME with dual pathway inhibition



nAMD = Neovascular Age-Related Macular Degeneration; **DME** = Diabetic Macular Edema; **Ang-2** = Angiopoietin-2; **VEGF** = Vascular endothelial growth factor.

VABYSMO (Faricimab) 120 mg/mL solution for injection. Each vial contains 28.8 mg faricimab in 0.24 mL solution. Refer to VABYSMO Summary of Product Characteristics (SmPC) for full prescribing information. Indications: Vabysmo is indicated for the treatment of adult patients with neovascular (wet) age-related macular degeneration (nAMD) and visual impairment due to diabetic macular oedema (DME). **Dosage & Administration: nAMD:** The recommended dose is 6 mg (0.05 mL solution) administered by intravitreal injection every 4 weeks (monthly) for the first 4 doses. Thereafter, an assessment of disease activity based on anatomic and/or visual outcomes is recommended 20 and/or 24 weeks after treatment initiation so that treatment can be individualised. In patients without disease activity, administration of faricimab every 16 weeks (4 months) should be considered. In patients with disease activity, treatment every 8 weeks (2 months) or 12 weeks (3 months) should be considered. There is limited safety data on treatment intervals of 8 weeks or less between injections. Monitoring between the dosing visits should be scheduled based on the patient's status and at the physician's discretion, but there is no requirement for monthly monitoring between injections. **DME:** The recommended dose is 6 mg (0.05 mL solution) administered by intravitreal injection every 4 weeks (monthly) for the first 4 doses. Thereafter, treatment is individualised using a treat-and-extend approach. Based on the physician's judgement of the patient's anatomic and/or visual outcomes, the dosing interval may be extended up to every 16 weeks (4 months), in increments of up to 4 weeks. If anatomic and/or visual outcomes change, the treatment interval should be adjusted accordingly, and interval reduction should be implemented if anatomic and/or visual outcomes deteriorate (see full SmPC). Treatment intervals shorter than 4 weeks between injections have not been studied. Monitoring between the dosing visits should be scheduled based on the patient's status and at the physician's discretion, but there is no requirement for monthly monitoring between injections. Contraindications: Hypersensitivity to the active substance or to any of the excipients listed in the SmPC, active or suspected ocular or periorbital infections, active intraocular inflammation. Warnings & Precautions: The name and the batch number of the administered product should be recorded to improve traceability of biological products. **Intravitreal injection-related reactions**, including those with faricimab, have been associated with endophthalmitis, intraocular inflammation, rhegmatogenous retinal detachment and retinal tear (see full SmPC). Proper aseptic injection techniques must always be used when administering Vabysmo. Patients should be instructed to report any symptoms, such as pain, loss of vision, photophobia, blurred vision, floaters, or redness, suggestive of endophthalmitis or any of the above-mentioned adverse reactions without delay, to permit prompt and appropriate management. **Retinal pigment epithelial tear** risk factors associated with the development of a retinal pigment epithelial tear after anti-VEGF therapy for nAMD, include a large and/or high pigment epithelial detachment. When initiating faricimab therapy, caution should be used in patients with these risk factors for retinal pigment epithelial tears. Retinal pigment epithelial (RPE) tear is a complication of pigment epithelial detachment (PED) in patients with nAMD. RPE tears are common in nAMD patients with PED, treated with IVT anti-VEGF agents including faricimab. There was a higher rate of RPE tear in the faricimab group (2.9%) compared to anti-VEGF group (1.4%). The majority of events occurred during the loading phase, and were mild to moderate, without impact on vision. **Populations with limited data** There is only limited experience in the treatment of nAMD patients ≥85 years, and DME patients with type 2 diabetes, patients with HbA1c over 10%, patients with high-risk proliferative diabetic retinopathy (DR), high blood pressure (≥ 140/90 mmHg) and vascular disease, sustained dosing intervals shorter than 8W, or nAMD and DME patients with active systemic infections. There is limited safety information on sustained dosing intervals of 8 weeks or less and these may be associated with a higher risk of ocular and systemic adverse reactions, including serious adverse reactions. There is also no experience of treatment with faricimab in diabetic patients with uncontrolled hypertension. This lack of information should be considered by the physician when treating such patients. **Sodium content** This medicinal product contains less than 1 mmol sodium (23mg) per dose, that is to say essentially 'sodium-free'. Fertility, Pregnancy & Lactation: **Women of childbearing potential** should use effective contraception during treatment and for at least 3 months following the last intravitreal injection of faricimab. **Pregnancy** There are no or limited amount of data from the use of faricimab in pregnant women. The systemic exposure to faricimab is low after ocular administration, but due to its mechanism of action (i.e. VEGF inhibition), faricimab must be regarded as potentially teratogenic and embryo-/foetotoxic (see full SmPC). Faricimab should not be used during pregnancy unless the potential benefit outweighs the potential risk to the foetus. **Breast-feeding** It is unknown whether faricimab is excreted in human milk. A risk to the breast-fed newborn/infant cannot be excluded. Vabysmo should not be used during breast-feeding. A decision must be made whether to discontinue breast-feeding or to discontinue/abstain from faricimab therapy taking into account the benefit of breast-feeding for the child and the benefit of therapy for the woman. **Fertility** No effects on reproductive organs or fertility were observed in a 6-month cynomolgus monkey study with faricimab (see full SmPC). Adverse reactions: The most frequently reported adverse reactions were cataract (1%), conjunctival haemorrhage (7%), IOP increased (4%), vitreous floaters (4%), eye pain (3%) and retinal pigment epithelial tear (nAMD only) (3%). The most serious adverse reactions were uveitis (0.5%), vitritis (0.3%), endophthalmitis (0.3%), retinal tear (0.2%), and rhegmatogenous retinal detachment (< 0.1%) (see section 4.4). Prescribers should consult the SmPC for a full list of adverse reactions. Marketing Authorisation Holder (MAH): Roche Registration GmbH, Germany. VABYSMO® is a registered trade mark. Date: September 2022. Excipients: L-histidine, acetic acid, L-methionine, polysorbate 20, sodium chloride, sucrose, water for injections. Prescription only medicine. Contact MAH for more details. **W** This medicinal product is subject to additional monitoring. This will allow quick identification of new safety information. Healthcare professionals are asked to report any suspected adverse reactions. See section 4.8 on the Summary of Product Characteristics (SmPC) for details on how to report adverse reactions. Full prescribing information should be consulted prior to prescribing. **Roche Farmacéutica Quimica, Lda.** Estrada Nacional 249-1, 2720-413, Amadora | Tel: +351 214 257 000 | Fax: +351 214 186 677 | NIF: 500 233 510 | www.roche.pt MF-PT-00001918, May 2023

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H-ZIMUT, Lda



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ORGANIZING INSTITUTION



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MEETING VENUE



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