# 30th

## EASDec Annual Meeting

5<sup>th</sup> - 6<sup>th</sup> November 2020 Barcelona (Spain) # VIRTUAL FORMAT #





#### **SCIENTIFIC PROGRAMME**

#### **VIRTUAL FORMAT**

#### THURSDAY, 5<sup>th</sup> NOVEMBER 2020

#### 15.00: Satellite Symposium 1

#### Symposium Bayer

#### Update and controversies on the treatment of DR and DME

Welcome and Introduction (Chair)

Prof. Rafael Simó (Spain)

Aflibercept: Optimizing Anti-VEGF Therapy in Retinal Disease

Dr. Patricia Udaondo (Spain)

Controversies in DR and DME: Importance of Early, Intensive Treatment

Dr. Olga Simó-Servat (Spain)

**EURETINA Guidelines and RWE** 

Dr. Lluís Arias (Spain)

16.30: Break

#### 17:00 Satellite Symposium 2

#### Diabetic retinopathy as a biomarker of cardiovascular disease

#### Symposium Novo Nordisk

Welcome and introduction (Chair) Prof. Javier Escalada (Spain)

The influence of microangiopathy on macroangiopathy in diabetes *Prof. Dídac Mauricio (Spain)* 

Diabetic retinopathy as a risk factor of cardiovascular disease *Prof. Rafael Simó (Spain)* 

The role of microangiopathy in heart failure *Prof. Vivencio Barrios (Spain)* 

#### 09:00 INTRODUCTION AND WELCOME

Prof. Rafael Simó (Spain)

## 9:10 ORAL COMMUNICATIONS: Basic and translational research in diabetic eye complications

#### (Supported by Mundipharma)

Chair: Prof. Alan Stitt (UK)

#### 9:12-9:20 Patrice Fort (Michigan, US)

Regional changes of retinal physiology in humans: diabetes vs retinopathy

#### 9:20-9:28 Esmeralda Bosma (Netherlands)

The role of eNOS in VEGF-induced vascular permeability

#### 9:28-9:36 Olga Simó-Servat (Spain)

ERM complex, a therapeutic target for vascular leakage induced by diabetes

#### 9:36-9:44 Hugo Ramos (Spain)

DPP-IV inhibitors for treating early stages of diabetic retinopathy in an experimental model: a dose-efficacy study

#### 9:44-9:52 Tine Van Bergen (Belgium)

Targeting plasma kallikrein with a novel bicyclic peptide inhibitor (THR-149) reduces retinal thickening in a diabetic rat model

#### 9:52-10:00 Eleni Beli (UK)

Diurnal rhythms of myeloid cell infiltration into the retina in type 1 diabetes (T1D)

#### 10:00-10:15 Break

## 10:15 SESSION: Screening of diabetic retinopathy in Europe: current status and new challenges

Chair: Prof. Peter Scanlon (UK)

#### 10:16-10:24 Katie Hazelgrove (UK)

Incidence of referable diabetic retinopathy at patient's first screening

#### 10:24-10:32 Jacob Grauslund (Denmark)

Identification and characterization of patients with rapid progression of diabetic retinopathy in the Danish national screening program

#### 10:32-10:40 Deborah M. Broadbent (UK)

Safety, efficacy and cost effectiveness of individual screening for diabetic retinopathy: the Individualised Screening for Diabetic Retinopathy (ISDR) single centre, open label, equivalence randomised controlled trial

#### 10:40-10:48 Rajiv Pandey (Ireland)

Irish National Diabetic Retina Screen programme: 5 rounds of screening and referrals

#### 10:48-10:56 Caroline Styles (UK)

Use of dilating drops in the Scottish Diabetic Retinopathy Screening Programme

#### 10:56-11:04 Jonathan Pons (Eswatini)

Establishing a diabetic retinopathy screening service in Eswatini

#### 11:04-11:12 Naiara Relaño-Barambio (Spain)

Validation of a deep learning algorithm for diabetic retinopathy

#### 11:12-11:20 Frank Verbraak (Netherlands)

Validation of automated screening for referable diabetic retinopathy with an automatic device (IDxDR) in a Spanish population

#### 11:20-11:30 Break

#### 11:30 SHORT TALK PRESENTATIONS

#### **Experimental research**

Chair: Dr. Cristina Hernández (Spain)

#### 11:30-11:35 - Aurora Mazzeo (Italy)

Effects of melanocortin receptor agonism in cell models of the inner blood-retinal barrier cultured in diabetic-like conditions

#### 11:35-11:40 - Natasha Varsney (UK)

Fluctuating hyperglycaemia has the same effect as sustained hyperglycaemia in an in vitro model of diabetic retinopathy

#### 11:40-11:45 - Ana I. Arroba (Spain)

Anti-inflammatory (m2) response is induced by a synthetic glycolipid-type molecule ((1r)-1-dodecylsulfinyl-5N, 6O-oxomethylidenenojirimycin): a new possible treatment in diabetic retinopathy

#### 11:45-11:50 – Ingeborg Klaassen (Netherlands)

Involvement of PDGF in neurite outgrowth leading to fibrovascular membranes in PDR

#### Screening and epidemiology

Chair: Dr. Deborah M. Broadbent

#### 11:55-12:00- Henrik Lund-Andersen (Denmark)

Prevalence of diabetic retinopathy in Greenland

#### 12:00-12:05 - Jayashree Sahni (California, US)

Insights into progression of diabetic retinopathy (DR) severity among primary care patients with diabetes in the United States

#### 12:05-12:10 - Angela Dale (UK)

The use of virtual clinics to manage diabetic retinopathy patients with delayed follow up appointments in an English hospital eye service

#### 12:10-12:15 - Catherine Jamison (UK)

Diabetic eye disease in patients with diabetes mellitus secondary to chronic pancreatitis (DMsCP)

#### Retinal imaging and artificial intelligence

Chair: Prof. Frank D. Verbraak

#### 12:20- 12:25 - Rosangela Lattanzio (Italy)

MultiColor imaging to detect different subtypes of retinal microaneurysms in diabetic retinopathy

#### 12:25-12:30 - Andreea Ciudin (Spain)

Retinal sensitivity and gaze fixation: two independent and valuable measurments that could be obtained by using microperimetry

#### 12:30-12:35 - Georgios Bontzos (Greece)

Retinal neurodegeneration, macular circulation and morphology of the foveal avascular zone in diabetic patients. Quantitative cross-sectional study using OCT-A

#### 12:35-12:40 - Mariacristina Parravano (Italy)

Deep capillary plexus impairment as a biomarker of diabetic retinopathy progression in the long-term follow up in type 1 diabetes

#### Diabetic retinopathy treatment

Chair: Dr. Rosangela Lattanzio

#### 12:45-12:50 - Irene Stratton (UK)

Outcomes in patients with diabetic macular oedema treated with aflibercept for up to three years

#### 12:50-12:55 - Søren Leer Blindbæk (Denmark)

Changes in retinal microvasculature parameters after low-carbohydrate, high-fat diet in type 2 diabetes: a randomized-controlled trial of Danish type 2 diabetic patients

#### 12:55-13:00 – Anna Stage Vergmann (Denmark)

Retinal vascular oxygen saturation in response to panretinal photocoagulation in proliferative diabetic retinopathy: detection of a dose-response relationship?

#### 13:0-13:05 - Diana Minasyan (Ireland)

Evaluation of real-life clinical outcomes of intravitreal anti-VEGF injections for diabetic maculopathy in Diabetic Retina Treatment Unit, Mater Misericordiae University Hospital, Dublin, Ireland

#### 13:10-14:00 LUNCH + POSTER SESSION 1 (See Annex)

## 14:00 ORAL COMMUNICATIONS: Clinical management and treatment of diabetic eye complications

Chair: Prof. Patrice Fort (USA)

#### 14:00-14:08 Rafael Simó (Spain)

Diabetic retinopathy as an independent predictor of subclinical cardiovascular disease: baseline results of the PRECISED study

#### 14:08-14:16 Kiran Shah (India)

Diabetic retinopathy grade as predictor of outcomes in patients with type 2 diabetes and lower extremity amputations – multicentric longitudinal seven years study

#### 14:16-14:24 José Cunha-Vaz (Portugal)

Ocular and systemic risk markers of diabetic retinopathy progression. A five-year longitudinal study

#### 14:24-14:32 Inês Pereira Marques (Portugal)

Different retinopathy phenotypes in diabetes type 2 show different five-year risks for development of DME and PDR

#### 14:32-14:40 Reinier Schlingemann (Netherlands)

miRNA levels as a biomarker for anti-VEGF response in patients with diabetic macular edema

#### 14:40-14:48 Qian Yang (UK)

Retinal vasculature damage in the deeper plexus is more severe than in the superficial plexus during very early diabetic retinopathy

#### 14:50-15:00 Break

#### 15:00 ROUND TABLE: Looking at retinal neurodegeneration and beyond

#### (Supported by OM-VIFOR PHARMA)

**Chair: Prof. Jakob Grauslund (Denmark)** 

- The neurovascular unit: a key element in the development of vascular leakage
  Alan Stitt (UK)
- Retinal neurodegeneration in diabetes: clinical and therapeutic implications. Rafael Simó (Spain)
- Retinal fingerprint of neurodegenerative diseases Frank D. Verbraak (Netherlands)

#### 16:20 SESSION: "Liquid biopsy: usefulness for personalized treatment in DME"

#### (Supported by ROCHE)

#### Chair: Dr. Patricia Udaondo (Spain)

- Retinal disease phenotyping through advanced ocular omics Andreas Dieckmann (Switzerland)
- Personalized medicine by targeting pro-inflammatory cytokines in DR and DME Marina Mesquida (Switzerland)

#### 17:20 SESSION: "What should know the GP about DR?"

#### (Supported by AstraZeneca)

#### Chair: Dr. Maria Cristina Parravano (Italy) and Dr. Xavier Mundet (Spain)

- Relationship with other diabetic complications *Manel Mata (Spain)*
- Can DR influence the management of diabetes? Olga Simó-Servat (Spain)

#### 18:15-19:25 POSTER SESSION 2 (18:15-18:45) and 3 (18:55-19:25). Please see Annex

## 19:30 ANNUAL GENERAL MEETING, PRESENTATION OF NEXT EASDEC MEETING AND FAREWELL

The Board: Rafael Simó (president), Tunde Peto (vice-president), Reinier Schlingemann (treasurer), Stela Vujosevic (secretary), Simon Harding (past-president).

Organizer of the next EASDec meeting: Jakob Grauslund

#### ANNEX

#### POSTER SESSION 1 (Screening and epidemiology: 13:15-13:45)

#### Chair: Tunde Peto (UK)

#### 1 – Steve Aldington (UK)

International students undertaking UK University-validated distance-learning courses in Diabetic Retinopathy Screening (DRS)

#### 2 – Rosalind Creer (UK)

Assessing virtual clinic quality and safety for patients with diabetic eye disease at Manchester Royal Eye Hospital

#### 3 - Iona Minty (UK)

Incidental vascular findings in diabetic eye screening: do patients benefit from referral?

#### 4 - Robert Rehak (UK)

Profile, visual and maculopathy outcomes of patients referred for the first time with preproliferative diabetic retinopathy from screening into a hospital eye service

#### 5 – Martina Tomić (Croatia)

Association between homocysteine and the risk of retinopathy in type 2 diabetes

#### 6 - Donal McCullagh (UK)

Audit of referral of patients graded as R3 (proliferative retinopathy) by diabetic eye screening programme Northern Ireland (DESPNI)

#### 7 – Laura Cushley (UK)

Certification of Visual Impairment in Patients with Diabetes Mellitus in Northern Ireland over a 5 year period

#### 8 - Laura Kennelly (Ireland)

Irish Diabetic Retinopathy Screening Programme: An analysis of grade R2 screened patients in 2015

#### 9 - Alan Sproule (UK)

Grading data are only as good as the graders – and all data depends on good quality questions

#### 10 - Tunde Peto (UK)

Young people's view of Diabetic Retinopathy Screening in Northern Ireland

#### POSTER SESSION 2 (Retinal imaging and artificial intelligence: 18:15-18:45)

Chair: Simon Harding (UK)

#### 1 – Giuseppe Querques (Italy)

Nonmydriatic widefield retinal imaging with an automatic white LED confocal imaging system compared with dilated ophthalmoscopy in screening for diabetic retinopathy

#### 2 - Maria Luisa Ribeiro (Portugal)

Baseline characterization of retinal vascular disease in eyes with mild to moderate non proliferative diabetic retinopathy (NPDR) in diabetes type 2, using novel non-invasive Imaging methods, in a longitudinal, prospective and interventional 2-year clinical study (CORDIS)

#### 3 – Maribel Lopez (Spain)

Automated diabetic retinopathy quality image assessment: diagnostic accuracy in clinical practice

#### 4 – Lars Díaz (Denmark)

Neural networks and left/right classification of retinal images

#### 5 - Fethallah Benmansour (Switzerland)

Machine Learning to Predict Diabetic Retinopathy Improvement in Patients with Mild NPDR Using Systemic and Retinal Imaging Features

#### 6 - Jacob Andersen (Denmark)

Using Semantic Segmentation for Detection of Microaneurysms in Retinal Images

#### 7 – Thomas Lee Torp (Denmark)

Validation of the SIVA-plus deep-learning algorithm on retinal vascular calibre in patients with treatment-naïve proliferative diabetic retinopathy before and after panretinal photocoagulation

#### 8 - Kim Gooding (UK)

Examining the impact of type 2 diabetes on longitudinal changes in fovea thickness

#### 9 - Andrzej Grzybowski (Poland)

Pilot artificial intelligence based diabetic retinopathy screening programme in Poland

#### 10 - Marie Torm (Denmark)

Hyperreflective dots on optical coherence tomography scans of diabetic retinopathy – can some of them represent non-perfused capillaries?

#### 11 - Romano Vrabec (Croatia)

Association between retinal nerve fiber layer, ganglion cell layer with inner plexiform layer and diabetic retinopathy in type 2 diabetes

#### POSTER SESSION 3 (Diabetic retinopathy treatment 18:55-19:25)

#### **Chair: Reinier Schlingemann (Netherlands)**

#### 1 – Valeriya A. Biletskaya (Russia)

Neovascular glaucoma drainage surgery, remote results for diabetic patients.

#### 2 - Eylem Cagiltay (Turkey)

Optical coherence tomography biomarkers to predict anti-VEGF response in diabetic macular edema

#### 3 - Emine Doğan (Turkey)

Short term effects of intravitreal Bevacizumab injection on retinal nerve fiber layer thickness

#### 4 – Mehmet Murat Uzel (Turkey)

Prognostic value of subretinal fluid volume in patients with Ranibizumab-resistant diabetic macular edema treated with intravitreal Dexamethasone

#### 5 – Stela Vujosevic (Italy)

Subthreshold micropulse laser in diabetic macular edema: OCT and OCT-Angiography biomarkers of treatment response

#### 6 - Irina Bashina (Russia)

The use of prolonged corticosteroids for the prevention of macular edema after cataract surgery in patients with diabetes mellitus

#### 7 - Mehmed Uğur Işik (Turkey)

Investigation of choroidal thickness changes after intravitreal Bevacizumab treatment in the treatment of diabetic macular edema

#### 8 - Lazaros Konstantinidis (Switzerland)

Outcomes of hybrid mixed-gauge by bimanual vitrectomy for diabetic tractional retinal detachment

#### 9 – Ernest Lim (UK)

Short-term effectiveness of subthreshold laser therapy for predominantly non-centre involving diabetic macular oedema



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