

31st EASDec Annual Meeting, 28th – 30th October 2021, Odense, Denmark.

www.easdec2021.dk



PROGRAMME

THURSDAY, 28th OCTOBER 2021

12:30 Registration and lunch

13:45 How to navigate physically and virtually at the EASDec 2021 hybrid meeting Chair of Local Organizing Committee, Professor Jakob Grauslund, Odense

14:00 The Moonshot initiative

Professor Tom Gardner, Ann Arbor

14:15 Satellite Symposium: Diabetes and diabetic macular oedema – where are we today? Novartis

Moderator: Professor Jakob Grauslund, Odense

Welcome and introduction

Professor Jakob Grauslund, Odense

Diabetes from the endocrinologist's perspective: what is important for the ophthalmologist to know?

VIRTUAL PRESENTATION

Professor Mikael Rydén, Stockholm

Diabetes from the ophthalmologist's perspective: what is important for the endocrinologist to know?

Professor Jakob Grauslund, Odense

Discussion

Αll

15:15 Highlights and future directions from the 5th conference of Screening for Diabetic Retinopathy in Europe (www.drscreening2005.org.uk)

Moderators: Professor Tunde Peto, Belfast, and Dr Caroline Styles, Dunfermline

16:00 Break

16:30 Satellite Symposium: Inflammation and the diabetic eye

Alimera Sciences

Chair: Professor Simon Harding, Liverpool

Welcome & Introduction

Professor Simon Harding, Liverpool

Neuroinflammation: A key player in diabetic retinopathy/diabetic macular edema *Professor Rafael Simó, Barcelona*

Imaging biomarkers to define DME chronicity and support therapeutic decision-making in DME

Professor Stela Vujosevic, Milan

Assessing the long-term safety and visual outcomes following corticosteroid therapy in patients with $\ensuremath{\mathsf{DME}}$

Professor Tunde Peto, Belfast

Q&A

ΑII

17:30 Satellite Symposium: Expanding Diabetic Eye Disease Detection and Management with Ultra-widefield Imaging

Optos

Chair: Professor Tunde Peto, Belfast

The Essential Role of Ultra-widefield in all Diabetic Eye Clinics Dr Stela Vujosevic, Milan

Ultra-widefield Fluorescein Angiography: What Lies Unseen? VIRTUAL PRESENTATION Dr Paolo Silva, Boston

The Role of the Peripheral Retina in Diabetic Retinopathy: From Basic Science to Town Planning

Ms Laura Cushley (PhD Researcher), Belfast

Virtual Diabetic Retinopathy Clinics, Artificial Intelligence and UWF-Guided Swept Source OCT

Professor Tunde Peto, Belfast

18:30 Official opening of EASDec

President of EASDec, Professor Rafael Simó, Barcelona Chair of Local Organizing Committee, Professor Jakob Grauslund, Odense

18:45 Annual Meeting Welcome Reception

HC Andersen's House

Hans Jensen Stræde 45 (100 meter from conference venue)

Dress code: Casual

Social event registration needed for participation

A culinary fairy tale experience:

18:45 Welcome and drink

18:50 Exhibition and appetizers

19:30 Buffet (drinks included)

21:00 End of the day

FRIDAY, 29th OCTOBER 2021

08:00 Registration

09:00 Introduction and welcome

President of EASDec, Professor Rafael Simó, Barcelona Chair of Local Organizing Committee, Professor Jakob Grauslund, Odense

09:15 Session 1: Experimental and translational research in diabetic eye complications

Chairs: Professor Reinier Schlingemann, Amsterdam, and Associate Professor Patrice Fort, Ann Arbor

- 09:16 Topical ocular administration of sitagliptin, a DPP-4 inhibitor, prevents the downregulation of neuroretinal presynaptic proteins induced by diabetes (abstract 30) Dr Cristina Hernandez, Barcelona
- 09:27 Characterization of a new immortalized human microglial cell line and its proinflammatory activation (abstract 35)

 Dr Aurora Mazzeo, Torino
- 09:38 Towards a better understanding of PLVAP in vascular permeability: a proteomic approach to identify interacting partners of PLVAP (abstract 95)
 Ms Esmeralda Bosma, Amsterdam
- 09:49 Mapping the daily rhythmic transcriptome in the diabetic retina (abstract 68)
 VIRTUAL PRESENTATION
 Dr Eleni Beli, Belfast
- 10:00 Immunomodulation of microglia/macrophage interaction and its effect in diabetic retinopathy progression (abstract 55)
 Ms Fatima Cano-Cano, Cadíz
- 10:11 Winner of the EASDec Young Investigator Award in honour of Anne-Katrin Sjolie

Circadian clocks in diabetic retinal endothelial cells (abstract 70) VIRTUAL PRESENTATION Ms Hanagh Winter, Belfast

10:22 Session conclusions by the moderators

10:25 Coffee break

10:40 Session 2: Epidemiology of ocular and systemic complications in diabetes

Chair: Professor Morten Moe, Oslo, and Professor Simon Harding, Liverpool

10:41 Free-registration award-winning abstract for young scientist

Five-year incidence and progression of age-related macular degeneration in people with diabetes (abstract 80)

Ms Dewi Romdhoniyyah, Liverpool

10:52 Relationship between diabetic retinopathy and systemic neurodegenerative diseases: a systematic review and meta-analysis (abstract 16)

Professor Jakob Grauslund, Odense

11:03 Non-attendance at diabetic eye screening in the Danish nationwide screening program (abstract 50)

Dr Anne Thykjær, Odense

11:14 Association between diabetic retinopathy and glaucoma: results from a national screening program (abstract 41)

Dr Signe Sperling, Odense

11:25 Prevalence and progression of diabetic retinopathy and macular edema during pregnancy in women with type 1 and type 2 diabetes (abstract 51)

Professor Elisabeth Mathiesen, Copenhagen

11:36 Do systematic diabetic retinopathy screening programmes prevent severe sight impairment? (abstract 91)

Dr Caroline Styles, Dunfermline

11:47 Session conclusions by the moderators

11:50 Eva Kohner Lecture: Detecting diabetic retinopathy – timing is everything

Chair: Professor Tunde Peto, Belfast

Awardee: Professor Simon Harding, Liverpool

12:35 Lunch

12:35-13:00: Poster presenters

13:00-13:30: All

13:00 Session 3: Poster session

1 - Experimental research

Moderator: Dr Cristina Hernandéz, Barcelona

Free-registration award-winning abstract for young scientist

1-01: Optimization of immunofluorescent detection of vascular markers on frozen human retinal sections (abstract 45)

Ms Noëlle Bakker, Amsterdam

1-02: Correlation between the aqueous humor proteome and severity of diabetic macular edema (abstract 28)

Dr Lasse Cehofski, Odense

2 – Diabetic eye screening

Moderator: Dr Dag Fosmark, Oslo

Free-registration award-winning abstract for young scientist

2-01: Identifying undetected prevalent disease: the first-pass effect in diabetic retinopathy screening programs (abstract 47)

E-POSTER

Dr Recivall Salongcay, Manila

Free-registration award-winning abstract for young scientist

2-02: Five year outcomes of diabetic eye screening in patients aged 80 years (abstract 40)

Ms Nichola Albutt, Birmingham

2-03: A qualitative study on barriers and enablers to uptake of diabetic retinopathy screening by people with diabetes in the western province of Sri Lanka (abstract 83) E-POSTER

Dr Mapa Piyasena, London

2-04: Inclusion of diabetic retinopathy screening strategies in national level diabetes care planning in low and middle-income countries: a scoping review (abstract 67) E-POSTER

Dr Katie Curran, Belfast

2-05: Out of hours diabetic eye screening – a high risk group (abstract 72) Mr Richard Aldred, Gloucestershire

2-06: Diabetic retinopathy in pregnancy: screening attendance rates and development of disease (abstract 25)

Ms Leanne Bird, Birmingham

Free-registration award-winning abstract for young scientist

2-07: Progression of diabetic retinopathy in type 1 and 2 diabetes during pregnancy and postpartum in the Danish national diabetes retinopathy screening program (abstract 89)

Ms Janni Larsson, Roskilde

2-08: Treatment and follow up of patients graded as R3 (proliferative retinopathy) by diabetic retinopathy screening programme (DRSP) in Belfast, Northern Ireland (abstract 59)

Dr Adele Heaney, Belfast

2-09: Diabetic retinopathy screening in individuals with severe mental illness (abstract 20)

Mr John Sandford, Birmingham

2-10: Diabetic eye screening outcomes after non-attendance for three or more years (abstract 27)

Ms Latesha Brown, Birmingham

- 2-11: Diabetes-related blindness between 1999 and 2018 in Denmark (abstract 92) Dr Søren Blindbæk, Odense
- 2-12: A retrospective analysis of factors affecting attendance at the Northern Ireland Diabetic Eye Screening Programme in young people with diabetes aged 12-26 (abstract 38)

Ms Laura Cushley, Belfast

2-13: Impacts on eye health for patients who fail to attend hospital ophthalmology appointments (abstract 88)

Ms Joanne Harmon, Cork

2-14: Updating a diabetic eye screening programme - a long and winding road (abstract 79)

Ms Irene Stratton, Gloucester

3 - Epidemiology

Moderator: Dr Karl-Johan Hellgren, Karlstad

3-01: Diabetic retinopathy and risk of prevalent and 5-year incident cardiovascular disorders in type 2 diabetes (abstract 37)

Ms Lonny Stokholm, Odense

3-02: Characteristic features of diabetic retinopathy (DR) in UK BIOBANK (UKBB) (abstract 75)

E-POSTER

Dr Michaell Quinn, Belfast

3-03: Characteristics of diabetic retinopathy in the Funen Diabetes Database based on latent class analysis (abstract 61)

Dr Morten Larsen, Odense

3-04: Progression to proliferative diabetic retinopathy in the Danish Registry of Diabetic Retinopathy (abstract 64)

Dr Sebastian Dinesen, Odense

3-05: Relationship between diabetic retinopathy and primary open-angle glaucoma in patients with diabetes mellitus (abstract 44)

Ms Marianne Kjærsgaard, Odense

3-06: Inverse cross-sectional and longitudinal relations between diabetic retinopathy and obstructive sleep apnea in type 2 diabetes: results from a national screening program (abstract 13)

Professor Jakob Grauslund, Odense

Free-registration award-winning abstract for young scientist

3-07: Incidence of acute angle closure glaucoma in the Northern Ireland Diabetic Eye Screening Programme (DESPNI) between 2016-2021 (abstract 102)

Dr Matt O'Donell, Belfast

3-08: Diabetic retinopathy as a potential marker of protection of prevalent and incident migraine: results from a national cohort study (abstract 14) Dr Anna Vergmann, Odense

3-09: Diabetic retinopathy and chronic respiratory failure: a national register-based cohort study (abstract 34)

Dr Benjamin Thinggaard, Odense

3-10: Diabetic retinopathy as a potential marker of Parkinson's disease: results from a nationwide register-based cohort study (abstract 19)

Ms Maria Larsen, Odense

3-11: Diabetic retinopathy and risk of major depression: bidirectional results from a Danish register-based nationwide cohort study (abstract 33)

Dr Frederik Pedersen, Odense

4 - Clinical studies

Moderator: Professor Toke Bek, Aarhus

4-01: Disorganisation of Retinal Inner Layers (DRIL) in participants with diabetic macular oedema: The RELIGHT Study (abstract 96)

Ms Catherine Jamison, Belfast

4-02: Risk of progression of type 2 diabetes individuals with non-proliferative retinopathy: Characterization of phenotypes in a 1-year follow-up study (abstract 36) *Dr Luisa Ribeiro, Coimbra*

4-03: Comparison of mean HbA1c value and Σ excessA1C index as predictors of retinopathy development at different diabetes duration (abstract 63) E-POSTER

Dr Akira Hirose, Tokyo

4-05: Subjective visual disturbances in relation to fluctuating blood glucose levels in adult patients with diabetes mellitus: results from a pilot study (abstract 43) Mr Martin Rasmussen, Odense

4-06: Is visual function altered in people with uncomplicated type 2 diabetes or with early diabetic retinopathy? (abstract 71)

Dr Karl-Johan Hellgren, Karlstad

4-08: Dry eye symptoms and signs in patients with type 2 diabetes (abstract 97) *Ms Siv Sandvik, Kongsberg*

4-09: The statistician will see you now – how to make the best of a scarce resource (abstract 77)

Ms Irene Straton, Gloucester

5 - Retinal imaging

Moderator: Dr Javad Hajari, Copenhagen

5-01: The retinal oxygen saturation can be used to differentiate retinal neovascularisations from intraretinal microvascular abnormalities (IRMAs) in diabetic retinopathy (abstract 90)

Dr Line Petersen, Aarhus

5-02: The importance of optical coherence tomography (OCT) for identification of clinically significant macular oedema (CSMO) in UK BIOBANK (UKBB) (abstract 78) E-POSTER

Dr Barbra Hamill, Belfast

5-03: Comparison of different metrics for the identification of capillary closure in diabetic retinopathy using OCTA (abstract 57)

Dr Inês Marques, Coimbra

5-04: Suspected diabetic retinopathy (DR) related changes in UK BIOBANK (UKBB) (abstract 103)

Mr Alan Sproule, Belfast

5-05: Retinal vessel density, vessel diameter and oxygen saturation are associated with non-proliferative diabetic retinopathy in young patients with type 1 diabetes (abstract 65)

Dr Nina Veiby, Oslo

5-06: Localization of retinal lesions in diabetic retinopathy in a virtual ocular learning platform (VIOLA) (abstract 73)

Dr Malin Lundberg Rasmussen, Odense

5-07: Agreement between experts in the detection of diabetic retinopathy associated lesions in a virtual ocular learning platform (VIOLA) (abstract 18) Mr Martin Hubel, Odense

Free-registration award-winning abstract for young scientist

5-08: Optical coherence tomography (OCT) for diabetic maculopathy in a digital surveillance clinic (abstract 39)

Ms Adele Farnsworth, Birmingham

6 - Automated screening

Moderator: Associate Professor Malin Lundberg Rasmussen, Odense

6-01: Detection of diabetic retinopathy lesions using deep learning based semantic segmentation in retinal 45 degrees 6-field images (abstract 76)

Mr Jakob Andersen, Odense

Free-registration award-winning abstract for young scientist

6-02: Testing the performance of risk prediction models to determine progression to referable diabetic retinopathy (RDR) in an Irish type 2 diabetes cohort (abstract 58) *Dr John Smith, Belfast*

6-03: Comparing SIVA and VAMPIRE for vascular geometric findings in patients with type 1 diabetes (abstract 26)

Dr Sami Dabbah

6-04: CHIldren Living with Diabetes See and Thrive with AI Review: CHILDSTAR (abstract 86)

E-POSTER

Ms Noelle Whitestone, Belfast

6-05: Creating artificially training data for AI detection of retinal microaneurysms (abstract 81)

Mr Simon Lyck Bjært Sørensen, Odense

6-06: Performance evaluation of software-assisted diabetic retinopathy screening (abstract 105)

Mr Tobias Nissen, Aalborg

7 - Medical and surgical treatment of diabetic retinopathy

Moderator: Professor Simon Harding, Liverpool

7-01: Pretraining on abstract modules on a virtual reality vitreoretinal simulator is a waste of time (abstract 56)

Ms Sarah Bjørn Petersen, Odense

Free-registration award-winning abstract for young scientist

7-02: Vitrectomy for sight-threatening diabetic retinopathy in Denmark 1999-2019: a national, registry-based study (abstract 31)

Dr Thomas Torp, Odense

7-03: Treating diabetic macular oedema: 12-weeks intervals in the first year (abstract 104)

Professor Tunde Peto, Belfast

7-05: Functional and structural efficacy of a novel combinational therapy of aflibercept and timely focal/grid photocoagulation in diabetic macular edema: do clinical study results compare favorably with a standard-of-care treated real-life population? (abstract 32)

Mr Mathias Jørgensen, Odense

7-08: Assessment of complications during the late postoperative period for patients with diabetes mellitus after drainage surgery of secondary neovascular glaucoma (abstract 49)

E-POSTER

Ms Valeriya Biletskaya, Moscow

15:00 Keynote lecture: Translating epidemiological studies into clinical care in diabetes VIRTUAL PRESENTATION

Professor Ryo Kawasaki, Osaka

15:30 Session 4: Clinical studies and novel treatments of diabetic retinopathy

Chairs: Dr Stela Vujosevic, Milan, and Professor Tom Gardner, Ann Arbor

15:31 The levels of placental growth factor and other proteins in the vitreous of patients undergoing diabetic vitrectomy and the effect of bevacizumab as compared to aflibercept pre-treatment (abstract 93)

Dr Ingeborg Klaassen, Amsterdam

- 15:42 The risk for developing vision threatening retinopathy after cataract surgery in diabetic patients depends on the post-operative follow-up time (abstract 98)

 Professor Toke Bek, Aarhus
- 15:53 Are there still indications for macular laser in diabetic macular oedema? (abstract 48) VIRTUAL PRESENTATION

Ms Angela Dale, Gloucestershire

16:04 Effect of calcium dobesilate in patients with subclinical diabetic macular edema: the CADODIAME study (abstract 23)

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16:15 Factors associated with the response to fluocinolone acetonide 0.19 mg in diabetic macular edema evaluated as the area-under-the-curve (abstract 15) Dr Maria Vittoria Cicinelli, Milan

16.26 Free-registration award-winning abstract for young scientist

Macular function and structure in early diabetic retinopathy (abstract 87)

VIRTUAL PRESENTATION

Dr Jae Yee Ku, Liverpool

16:37 Session conclusions by the moderators

16:40 Break

16:55 Key note lecture: Diabetic eye screening: one size does not fit all

VIRTUAL PRESENTATION

Professor Einar Stefánsson, Reykjavík

17:25 Annual General Meeting

EASDec Board

18:00 End of the day

19:00 Conference dinner

Restaurant Nordatlanten (North Atlantic Restaurant)

Nordatlantisk promenade 1 (1.8 kilometer walk from conference venue)

Dress code: Smart casual

Social event registration needed for participation

- 19:00 We meet at the conference venue and walk through the city to the restaurant
- 19:30 Arrival and welcome drink
- 20:00 Conference dinner
- 22:00 Coffee
- 22:30 Live band: Lasse Skov & Clazified
- 01:15 Late night snack
- 02:00 End of night

SATURDAY, 30th OCTOBER 2021

08:15 Registration

08:45 Session 5: Providing ocular and systemic prevention and care in diabetes

Chairs: Professor Rafael Simó, Barcelona, and Professor Kurt Højlund, Odense

08:46 Free-registration award-winning abstract for young scientist

Early worsening of retinopathy in people with diabetes after rapid improvement in glycaemic control: a systematic review (abstract 46)

VIRTUAL PRESENTATION

Dr Handan Akil, Liverpool

08:57 MFAP4 immunotherapy-mediated inhibition of retinal neovascularization and vascular leakage (abstract 17)

Dr Anders Schlosser, Odense

09:08 Diabetic retinopathy and skin tissue advanced glycation end products are biomarkers of vascular events in type 2 diabetic patients: results of the "PRECISED" study (abstract 22)

Ms Alejandra Planas, Barcelona

09:19 Free-registration award-winning abstract for young scientist

Long-term visual outcomes and morphologic biomarkers of vision loss in eyes with diabetic macular edema treated with anti-VEGF therapy (abstract 106)

VIRTUAL PRESENTATION

Dr Enrico Borrelli, Milan

09:30 Session conclusions by the moderators

09:33 Mini Symposium: Diabetic retinopathy in relation to ocular and systemic disease: pearls and pitfalls from a Danish national registry-linkage study

Chair: Professor Jakob Grauslund, Odense

Expert panel: Professor Kurt Højlund (the diabetologist), Professor Tunde Peto (the ophthalmologist)

09:34 The Ocular And Systemic complications In diabetic retinopathy Study (OASIS): study design and methodology

Professor Jakob Grauslund, Odense

- 09:42 <u>Rapid fire presentation 1</u>: DR as a marker of neurodegenerative disease Dr Frederik Nørregaard Pedersen, Odense
- 09:48 Rapid fire presentation 2: DR as a marker of cardiovascular disease Ms Lonny Stokholm, Odense
- 09:54 <u>Rapid fire presentation 3</u>: DR as a marker of ocular disease *Dr Sebastian Dinesen, Odense*
- 10:00 Panel discussion: what can be learned from big data, register-linking studies?

10:10 Keynote Lecture: A journey through multi-omics analyses of diabetic retinopathy

10:55 Coffee Break

11:15 Session 6: Novel methods in retinal imaging

Chairs: Professor Tunde Peto, Belfast, and Professor Jakob Grauslund, Odense

- 11:16 OCTA metrics monitor severity progression of diabetic retinopathy (abstract 29) *Professor José Cunha-Vaz, Coimbra*
- 11:27 Ganglion cell-inner plexiform layer alteration in the initial stages of diabetic retinopathy in type 2 diabetic patients: a 5-year longitudinal study (abstract 42) Dr Inês Marques, Coimbra
- 11:38 Microaneurysm Turnover in eyes with mild nonproliferative diabetic retinopathy is associated with progression and development of sight-threatening complications: a 5-year longitudinal study (abstract 100)

 Dr Ana Rita Santos, Coimbra
- 11:49 Three-year OCT-angiography evaluation in patients with diabetes mellitus type 1 and 2 without clinical signs of diabetic retinopathy and with good glycemic control (abstract 62)
 - Dr Stela Vujosevic, Milan
- 12:00 Session conclusions by the moderators

12:03 Session 7: Entering the era of artificial intelligence in diabetic eye screening Chairs: Professor Frank Verbraak, Amsterdam, and Professor Rajeeth Savarimuthu,

Odense

- 12:04 Development of an artificial intelligence-based diabetic retinopathy screening tool for OPTOS ultra-widefield imaging (abstract 107)
 Professor Tunde Peto, Belfast
- 12:15 Trustworthy AI: closing the gap between development and integration of AI in Ophthalmology (abstract 66)

 Ms Cristina González-Gonzalo, Amsterdam
- 12:26 Accuracy of a diabetic retinopathy grading algorithm used with a hand-held fundus camera in Southern Malawi (abstract 99)

 VIRTUAL PRESENTATION

 Dr Joe Aslan, Zomba
- 12:37 Testing of thirteen artificial intelligence algorithms for diabetic retinopathy using fundus images from Finland (abstract 69)

 Dr Petri Huhtinen, Oulo

- 12:48 Session conclusions by the moderators
- **12:51** Best poster prize ceremony and closing remarks
 President of EASDec, Professor Rafael Simó, Barcelona
- 13:00 Conference close and lunch to go