

Program Agenda

Thursday, August 27, 2015

7 – 8 AM Registration and Continental Breakfast

8 – 8:05 AM Welcome and Opening Remarks

Session 1: Global Epidemic

Moderators: Ronald Klein, Tarun Sharma

8:05 – 8:20 AM Is prevalence of visual impairment rising or falling in people with diabetes? **Ronald Klein**

8:20 – 8:35 AM Diabetic retinopathy: Epidemic in India **Tarun Sharma**

8:35 – 8:50 AM Individualized risk assessment improves management and economics of diabetic retinopathy screening **Einar Stefansson**

8:50 – 9:05 AM Disparities in diabetes and diabetic retinopathy based on insurance status at Chicago Academic Medical Centers **Michael Mbagwu**

9:05 – 9:20 AM Telemedicine in DR: Maximizing real world outcomes **Paolo Silva**

9:20 – 9:35 AM **Discussion**

9:35 – 9:50 AM **Coffee Break**

Session 2: Molecular Mechanisms I

Moderators: Michael Brownlee, Renu Kowluru

9:50 – 10:05 AM Epigenetics in diabetic retinopathy **Michael Brownlee**

10:05 – 10:20 AM Mitochondrial epigenetics **Renu Kowluru**

10:20 – 10:35 AM Mechanical control of retinal endothelial activation associated with diabetic retinopathy **Kaustabh Ghosh**

10:35 – 10:50 AM Role of placental growth factor in the pathogenesis of diabetic retinopathy **Hu Huang**

10:50 – 11:05 AM **Discussion**

11:05 – 12 noon Regulation of physiological and pathological vascularization by hypoxia-inducible factors **Gregg Semenza (Keynote lecture)**
(Introduction: **Maria Grant**)

12 noon – 1 PM **Lunch & Poster viewing**

Session 3: Cellular Targets

Moderators: Timothy Kern, David Antonetti

1 – 1:15 PM Restoration of vascular barriers after VEGF-induced permeability
David Antonetti

1:15 – 1:30 PM Role of pericytes in retinal capillary function & integrity
Patricia D'Amore

1:30 – 1:45 PM Photoreceptors and diabetic retinopathy **Timothy Kern**

1:45 – 2 PM Microglia, modulators of chronic inflammation in DR **Susanne Mohr**

2 – 2:15 PM Excess ECM synthesis promotes vascular lesions in DR **Sayon Roy**

2:15 – 2:30 PM Novel mechanism of matrix metalloprotease-9 activation in diabetic retinopathy **Manish Mishra**

2:30 – 2:45 PM Neuroretinal degeneration precedes microvascular damage and Retinopathy from diabetes **Michael Abramoff**

2:45 – 3 PM Notch signal control of neurovascular unit in DR **Arboleda-Velasquez**

3 – 3:15 PM **Discussion**

3:15 – 3:30 PM **Coffee Break**

Session 4: Imaging and Biomarkers

Moderators: Stephen Burns, Edward Feener

3:30 – 3:45 PM Recent advance in Imaging in DR **Stephen Burns**

3:45 – 4 PM Predictive biomarkers of visual outcome in eyes with DME **Jennifer Sun**

4 – 4:15 PM Optical Coherence Tomography Angiography (OCTA) evaluation of the foveal vasculature in diabetics **Caroline Bauman**

4:15 – 4:30 PM	Vitreous proteomics: Biomarkers Edward Feener
4:30 – 4:45 PM	Evaluation of a handheld electroretinogram device (RETeval) in diabetic patients with and without diabetic retinopathy Victor Chong
4:45 – 5 PM	Large-scale study of safety and efficacy of automated diabetic retinopathy screening on 54,324 diabetic patients Kaushal Solanki
5 – 5:15 PM	Discussion
5:15 – 7 PM	Poster Viewing & Reception

Friday, August 28, 2015

7 – 8 AM	Registration and Continental Breakfast
8 – 8:05 AM	Welcome and Opening Remarks

Session 5: Molecular Mechanisms II

Moderators: John Penn, George King

8:05 – 8:20 AM	Micro RNAs and diabetic retinopathy Manuela Bartoli
8:20 – 8:35 AM	Microrna-146 inhibits development of diabetic retinopathy Shunbin Xu
8:35 – 8:50 AM	Accumulation of hypoxia Inducible Factor-1a in retinal cells in response to acute hypoglycemia is necessary for survival Monica Deshpande
8:50 – 9:05 AM	Mitochondrial stress response and quality control in diabetic retinopathy: a potential role of the thioredoxin interacting protein (TXNIP) in mitophagy Lalit Singh
9:05 – 9:20 AM	Fatty acid metabolites as pharmacological agents for retinal vascular inflammation John Penn
9:20 – 9:35 AM	Profile of circulating arachidonic acid derived eicosanoids in mouse model of diabetic retinopathy Ahmed Ibrahim
9:35 – 9:50 AM	Role of the plasma kallikrein system in retinal edema and neuroretinal dysfunction Allen Clermont
9:50 – 10:05 AM	Neuroprotection in DR – Nrf2 enhancement in DR Elia Duh

10:05 – 10:20 AM Protective factors against development of DR in Joslin Medalist study
George King

10:20 – 10:35 AM **Discussion**

10:35 – 10:50 AM **Coffee Break**

Session 6: Systemic Factor Control, Laser & Surgery in DR

Moderators: Emily Chew, Gary Abrams

10:50 – 11:05 AM Systemic risk factors – ACCORD study **Emily Chew**

11:05 – 11:20 AM New approaches to laser therapy in DR **Daniel Palanker**

11:20 – 11:35 AM Surgical advances in DR **Gary Abrams**

11:35 – 12:15 PM Lessons from clinical trials in DR – A perspective **Robert Frank**
(Special Lecture) (Introduction: Arup Das)

12:15 – 1:15 PM **Lunch**

Session 7: Pharmacotherapies in DR

Moderators: Lloyd P. Aiello, Arup Das

1:15 – 1:30 PM Update of anti-VEGF therapies in DME & DR **Lloyd P. Aiello**

1:30 – 1:45 PM Effect of Intravitreal Aflibercept Injection (IAI) on Diabetic Retinopathy
Severity Scale (DRSS) in patients with Diabetic Macular Edema (DME):
100-Week Results from VISTA and VIVID **John Kitchens**

1:45 – 2 PM Long-acting delivery of anti-VEGF therapies **Janet Hopkins**

2:00 – 2:15 PM Diabetic macular edema: Novel therapeutic targets **Arup Das**

2:15 – 2:30 PM Pharmacotherapies in development in DME **Quan Nguyen**

2:30 – 2:45 PM Tie2 signaling and diabetic retinopathy **Peter Campochiaro**

2:45 – 3 PM Dopamine mediates early rod-driven inner retinal dysfunction in diabetic
mice **Machelle Pardue**

3 – 3:15 PM **Discussion**

3:15 – 3:30 PM **Coffee Break**

Session 8: Future Directions

Moderators: Maria Grant, Ash Jayagopal

3:30 – 3:45 PM	Stem cell therapies in diabetic eye diseases Alex Ljubimov
3:45 – 4 PM	Novel progenitor cell combination for revascularization of retina Maria Grant
4 – 4:15 PM	Stem cell therapy in DR with angiopoietin 1 and endothelial progenitor cells Bala Ambati
4:15 – 4:30 PM	Genomic & genetic approaches to investigate pathobiology of DR Anand Swaroop
4:30 – 4:45 PM	Emerging therapeutic strategies in diabetic retinopathy Ash Jayagopal
4:45 – 5 PM	Discussion
5 – 5:15 PM	Meeting Wrap-Up