

Glaucoma Research Society Meeting

Halifax, Canada, 24 August - 27 August, 2022

SCIENTIFIC PROGRAM

THURSDAY 25 AUGUST

08.00	B. Chauhan	Welcome
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Session 1: Population Screening and Risk Stratification

08.10	A. Khawaja	Polygenic risk scores
08.30	A. Iwase	Myopia and glaucoma screening with perimetry
08.50	X. Zhang	Artificial intelligence in glaucoma: diagnosis and prediction
09.10	I. Stalmans	Artificial intelligence in glaucoma: challenges and a quest for solutions
09.30	D. Friedman	The ZAP trial on angle closure
09.50	L. Pasquale	Telemedicine in glaucoma

10.10: BREAK

Session 2: Detecting Glaucoma Progression

10.40	F. Medeiros	Trend-based analysis of visual field data
11.00	L. Zangwill	Visual field and structural progression in the ADAGES
11.20	T-W Kim	Choroidal microvasculature and progression
11.40	B. Fortune	Directional OCT and OCT-A in imaging glaucomatous optic nerve head deformation
12.00	F. Cordeiro	DARC and progression

12.20: LUNCH

Session 3: Workshops

13.30	Facilitators	Title
	D. Garway-Heath and C. Leung	Clinical trials in neuroprotection
	A. Di Polo and N. Marsh-Armstrong	Why do retinal ganglion cells die in glaucoma?

15.00: BREAK

Session 4: IOP and Disease: Causes and Therapy

15.30	D. Stamer	Molecular signature of human outflow cells by single-cell transcriptomics
15.50	R. Ethier	Trabecular meshwork stiffness: <i>In vivo</i> measurement and relationship to function
16.10	G. Gazzard	Laser trabeculoplasty
16.30	T. Wong	Application of multiphoton imaging: Alterations in collagen structure and function
16.50	J. Schuman	Stem cell therapy

17.10: ADJOURN

FRIDAY 26 AUGUST

Session 4: Lightning Talks 1

08.20	G. Spaeth	What parts of the clinical examination correlate with how patients feel?
08.30	K. Singh	Patient related outcomes in the assessment of novel glaucoma surgical devices
08.40	P. Ramulu	Patterns of physical activity in glaucoma
08.50	L. Pillunat	Increased retinal venous pressures are a risk factor in glaucoma
09.00	M. Aihara	Aqueous lipid mediator as a marker of chronic IOP elevation in open-angle glaucoma
09.10	S. Gandolfi	How SLT works: From bench to bedside
09.20	G. Novack	Why aren't there more new drugs to treat glaucoma?

09.40: BREAK

Session 5: Goldmann Lecture

10.20	B. Chauhan	Introduction
10.25	A. Tuulonen	Big data and critical thinking in the search for value

12.00: LUNCH/OPTIONAL TOUR

SATURDAY 27 AUGUST

Session 6: Molecular Mechanisms Underlying Ganglion Cell Death

08.00	J. Morgan	Mitochondrial oxidative stress
08.20	N. Marsh-Armstrong	Glaucoma-associated OPTN mutations increase transmitography
08.40	M. Vetter	Complement activation
09.00	L. Levin	Improving translational fidelity: Lessons from sigma-1 receptor neuroprotection
09.20	J. Liebmann	Nicotinamide and pyruvate for neuroenhancement in open-angle glaucoma

09.40: BREAK

Session 7: New Insights into Disease Mechanisms

10.10	J. Wiggs	EFEMP1 and juvenile open-angle glaucoma
10.30	T. Aung	APBB2 and primary open-angle glaucoma
10.50	J. Craig	Multi-ethnic primary open-angle glaucoma GWAS
11.10	C.C. Khor	CYP39A1 rare variants and exfoliation syndrome
11.30	J-H. Kang	Metabolomic profile of exfoliation glaucoma in pre-diagnostic plasma

1150: LUNCH

Session 8: Lightning Talks 2

13.00	D. Minckler	APP-A4 demonstrates axonal transport block in human glaucoma
13.10	H. Quigley	Lamina cribrosa astrocytes are possibly unique
13.20	C. Burgoyne	Optic nerve head myopic alteration: Conceptual and clinical implications
13.30	C. O'Brien	Lamina cribrosa tissue stiffness is a fundamental driver of glaucomatous cupping
13.40	U. Schlötzer-Schrehardt	Functional genomics reveal metabolic pathways involved in psuedoexfoliation
13.50	A. Robin	Pseudoexfoliation: True or false

14.00: BREAK

Session 9: Glaucoma Models: Animals and Cells

14.20	C. Girkin	An ocular hypertension model in human organ donors
14.40	TBC	Tissue plasminogen activator in MYOC mutant mice
15.00	TBC	TEK/ANGPT1 knockout mice
15.20	J. Fingert	TBK1 transgenic mice
15.40	TBC	Induced-pluripotent stem cells for ganglion cell differentiation

16.00: MEETING ADJOURNS