

**Glaucoma Research Society Meeting, Woods Hole, Wyoming, 27-30
August 2014**

FINAL SCIENTIFIC PROGRAMME

Thursday, 28 August

Session 1: Making Experimental Models Relevant to Human Glaucoma

Chairs: A. Clark and C. Burgoyne

8:00	T. Acott	Advances in the anterior chamber organ model
8:20	C. Burgoyne	Defining a "glaucomatous" neuropathy in monkeys
8:40	N. Gupta	Lateral geniculate nucleus dendritic remodelling in monkey experimental glaucoma
9:00	A. Weber	Retinal ganglion cell dendritic structure in glaucoma
9:20	N. Marsh-Armstrong	Axon and myelin debris clearance by optic nerve head astrocytes in mice
9:40	H. Levkovitch-Verbin	Age-related differences in rat retinal ganglion cell susceptibility

10:00 Break

Session 2: OCT Advances and Their Clinical Implications

Chairs: L. Zangwill and G. Tomita

10:30	J. Caprioli	Clinical importance of quantifying optic nerve head tilt and torsion
10:50	C. Leung	Detection of optic nerve head and retinal nerve fibre layer progression in glaucoma
11:10	J. Liebmann	Peripheral lamellar alterations, nerve fibre layer haemorrhages and loss
11:30	I. Sigal	Can we use OCT to do clinical finite element modelling of the optic nerve head?
11:50	K. Park	Is the lamina cribrosa different in glaucoma patients with normal IOP?

12:10 B. Chauhan The fovea-Bruch's membrane opening centre axis, the temporal raphe and the ISNT rule

12:30 Lunch

Session 3: In Memoriam

Chair: I. Goldberg

13:30	M. Araie	Yoshihiko Shiose
	M. Araie	Ikuo Azu
	M. Kass	Bernard Becker
	A. Heijl	Torsten Krakau
	R. Allingham	David Epstein

Session 4: Trabecular Meshwork and Optic Nerve Head Pathology – A Common Link?

Chairs: E. Tamm and P. Kaufman

13:50	E. Tamm	The causative role of myofibroblast transdifferentiation in the pathogenesis of glaucoma
14:10	A. Clark	Cells of the optic nerve head and their molecular changes in glaucoma
14:30	H. Quigley	Treatment strategies to modulate stiffness of scleral and lamina cribrosa cells in glaucoma
14:50	H. Tanihara	How to treat trabecular meshwork contractility
15:10	R. Allingham	Are there glaucoma genes that link trabecular meshwork and optic nerve head pathology?

15:30 Break

Session 5: Is Slow Release Worth the Wait?

Chairs: G. Cioffi and J. Liebmann

16:00	M. Wax	The most promising candidates for slow release
16:20	R. Varma	Do clinicians actually want slow release?
16:40	P. Khaw	Slow release modulation of wound healing
17:00	D. Budenz	Slow release from glaucoma drainage devices

Friday, 29 August

Session 6: Measuring Functional Impairment

Chairs: L. Zangwill and R. Varma

8:00	D. Garway-Heath	What we know about functional impairment in glaucoma
8:20	A. Coleman	Challenges to measuring functional impairment
8:40	D. Friedman	Real world assessment of functional impairment
9:00	I. Goldberg	Functional impairment as an endpoint for clinical trials – Are we there yet?

Session 7: Goldman Lecture

9:20	F. Grehn	Introduction
9:25	H. Quigley	How glaucoma will soon be treated

9:50 Break

Session 8: Update on Pseudoexfoliation Glaucoma

Chairs: R. Ritch and C. O'Brien

10:20	R. Ritch	Exfoliation syndrome and exfoliative glaucoma – The challenges ahead
10:40	W. Alward	The composition of pseudoexfoliative material and the cells involved in its production
11:00	D. Mackey	Genetics and genome wide association studies
11:20	T. Aung	Pseudoexfoliation in Asia – Discovery of a new gene from a multinational genome wide association study

11:40 Business meeting

12:30 Lunch

Session 9: New Concepts in Glaucoma Pathogenesis

Chairs: B. Chauhan and K. Sugiyama

8:00	E. Newman	Glia, regulation of blood flow and possible implications for glaucoma
8:30	K. Martin	Glia and optic nerve regeneration
8:50	C. O'Brien	The potential role of retinal pigment epithelium cell in mediating glaucomatous cupping
9:10	D. Yu	Energy demands and blood supply in the optic nerve head
9:30	T. Nakazawa	Comprehensive analysis of early retinal transcription changes following optic nerve crush

9:50 Break

Session 10: Candidate GRS Member Presentations

Chairs: M. Araie and W. Alward

10:10	L. Pasquale	The UV radiation-exfoliation syndrome hypothesis
10:30	C. Tham	Advances in management of primary angle closure glaucoma
10:50	J. Danias	The role of tissue plasminogen activator in IOP regulation in steroid-induced glaucoma
11:10	J. Morrison	Physiology lessons in modelling IOP-induced optic nerve injury
11:30	L. Schmetterer	New developments in OCT and potential applications in glaucoma
11:50	R. Ethier	Scleral and lamina cribrosa structure-function relationships in glaucoma
12:10	N. Wang	From controlling IOP only to balancing trans-laminar cribrosa pressure difference

12:30 Lunch

Session 11: Glaucoma Management and Resources: Can We Do More With Less?

Chairs: A. Heijl and A. Tuulonen

13:30	P. Foster	How much glaucoma will cost in the year 2030?
13:50	G. Cioffi	More wo/men or machines?
14:10	A. Tuulonen	Ocular hypertension - Pay now or pay later?
14:30	M. Nicolela	How we can customise the diagnostic testing diet for cost-savings?
14:50	F. Grehn	Cost and efficiency of drugs and procedures - Where is the cost saving?
15:10	R. Sihota	Cost-effective and safe glaucoma surgery

15:30 Break

Session 12: Is visual improvement in advanced glaucoma a realistic goal?

Chairs: K. Martin and A. Heijl

16:00	Kaufman	Strategies to improve vision in glaucoma
16:20	Crowston	Can RGC recovery after injury be modified?
16:40	Araie	Quantifying central visual field changes in advanced glaucoma
17:00	Schuman	Regenerative ophthalmology

17:20 Meeting Adjournment
