

14th Optic Nerve Meeting

8-10th December 2026

Obergurgl, Austria

20 minute slot = 10 minute talk and 10 minute discussion
10 minute slot = 5 minute talk and 5 minute discussion

Tuesday 8th December

8:30 - 8:40	**Jonathan Crowston, Franz Grus & Keith Martin : Welcome and Introduction**	
	Session 1: Glial and Immune Responses in Optic Nerve Disease	
	Chairs: Julia Schaeffer, Bryan Jones	
8:40 - 9:00	Qi Cui	Reprogramming retinal myeloid cells through sequential depletion and repopulation for glaucoma neuroprotection
9:00 - 9:20	Ed Levine	Promoting neurogenic reprogramming of Muller glia with electrical stimulation
9:20 - 9:40	Adriana Di Polo	Neurovascular dysfunction in glaucoma
9:40 - 10:00	Jonny Kipnis	Cellular immunotherapies for optic nerve injuries and beyond
10:00 - 10:30	**Morning Tea**	
	Session 2: Glaucoma Neuroprotection: Clinical and Therapeutic Perspectives	
	Chairs: Adriana Di Polo, Keith Martin	
10:30 - 10:50	Jeff Goldberg	Neurotrophic factors and electrical stimulation for glaucoma neuroprotection
10:50 - 11:10	Ben Sivyer	Taming the midgets
11:10 - 11:30	Song Li	Retinal ganglion cell–microglia crosstalk in glaucoma: from debris clearance to neuroprotection
11:30 - 11:50	Crawford Downs	IOP fluctuations could be blinding both patients and the clinicians who treat them
11:50 - 12:00	Lies De Groef	Extracellular vesicles mediate neuron-glia communication during retinal neurodegeneration
12:00 - 17:30	**Lunch Break**	
	Session 3: Mitochondrial Optic Neuropathies: Mechanisms and Therapies	
	Chairs: Qi Cui, Len Levin, John Britton	
17:30 - 17:50	Valerio Carelli	Molecular mechanisms of LHON and mitochondrial optic neuropathies
17:50 - 18:10	Michal Minczuk	Mitochondrial genome engineering: modelling LHON and therapeutic approaches
18:10 - 18:30	Marcela Votruba	Astrocytes as drivers of pathology in mitochondrial optic neuropathies
18:30 - 18:50	Thomas Klopstock	Current therapeutic options for LHON: idebenone and gene therapy
18:50 - 19:00	Claudia Priglinger	LHON: clinical phenotype

Wednesday 9th December

	Session 4: Retinal Ganglion Cell Regeneration and Neuronal Repair	
	Chairs: Claudia Priglinger, Jonathan Crowston	
8:30 - 8:50	Julia Schaeffer	Translational regulation of CNS regeneration
8:50 - 9:10	Tom Reh	Recent results in retinal ganglion cell regeneration
9:10 - 9:30	Larry Benowitz	Intra-retinal signaling that gates optic nerve regeneration
9:30 - 9:50	Richard Eva	Protecting neurons by targeting Golgi stability
9:50 - 10:00	Andrew White	Irbesartan protects human RGCs from mitochondrial stress and preserves mouse RGC survival following optic nerve injury
10:00 - 10:30	**Group Photo + Morning Tea**	
	Session 5: Metabolic Stress and Mitochondrial Dysfunction	
	Chairs: Marcela Votruba, Valerio Carelli	
10:30 - 10:50	Bledi Petriti	Metabolic rewiring and leak metabolism: How the E50K mutation drives ATP synthase dysfunction
10:50 - 11:10	Elizabeth Jonas	ATP synthase leak channel and developmental metabolism
11:10 - 11:30	Anna La Torre	Linking intrinsic metabolic stress to retinal ganglion cell (RGC) degeneration
11:30 - 11:50	Pete Williams	Pharmacological targeting of NMNAT2 for neuroprotection
11:50 - 12:00	Lucia Luengo Gutierrez	Modelling and correction of retinal pathologies caused by mitochondrial DNA mutations via genetic engineering
12:00 - 17:30	**Lunch Break**	
	Session 6: Synaptic Plasticity and Visual Circuits	
	Chairs: Tas Khatib, Michel Cayouette	
17:30 - 17:50	Christian Behl	Synaptic plasticity and mitochondrial turnover
17:50 - 18:10	Jakob van Engelhardt	Beyond the relay: synaptic plasticity shapes visual processing in dLGN relay neurons
18:10 - 18:30	Jonathan Crowston	RGC resilience- do RGCs have the capacity for functional recovery?
18:30 - 18:50	Benedikt Grünewald	Neuronal and synaptic impairments in lysosomal storage disorders
18:50 - 19:00	Sarah Teichtmeister	Reversing synaptic deficits in a mouse model of the juvenile ceroid lipofuscinosis (JNCL)

Thursday 10th December

	Session 7: Glaucoma Neuroprotection: Molecular Targets	
	Chairs: Elizabeth Jonas, Franz Grus	
8:30 - 8:50	Andrea Loreto	Targeting SARM1 to prevent optic nerve degeneration: Therapeutic opportunities and challenges
8:50 - 9:10	Tas Khatib	Modelling retinal ganglion cell injury and repair in human assembloids
9:10 - 9:30	Jenni Vu	Mitigating glaucomatous vision loss via GLUT3 enhancement
9:30 - 9:50	Keith Martin	Gene therapy for glaucoma
9:50 - 10:10	Bob Casson	Mapping retinal metabolism: Human data
10:10 - 10:30	**Morning Tea**	
	Session 8: Emerging Therapies and Repair Models	
	Chairs: Anna La Torre, Andrea Loreto	
10:30 - 10:50	Volker Patzel	Mitochondria targeting RNAs
10:50 - 11:10	Veronica Moreno	Mitochondrial therapy for optic neuropathies
11:10 - 11:30	Kyoungln Jung	Effects of retinal organoid developmental stage and RGC Enrichment on transplantation outcomes
11:30 - 11:50	Sebastian Timmler	Myelin plasticity in optic nerve ageing
11:50 - 12:00	Stavros Vagionitis	Neuronal activity bidirectionally regulates myelin plasticity
12:00 - 17:30	**Lunch Break**	
	Session 9: Retinal and Optic Nerve Neurodegeneration	
	Chairs: Veronica Moreno, Christian Behl	
17:30 - 17:50	Bryan Jones	Retina: A model for neurodegeneration
17:50 - 18:10	Kalyan Vinnakota	Genome scale metabolic network modeling of the retina and the optic nerve
18:10 - 18:30	Len Levin	Dynamic molecules: Computational approaches to understanding mtDNA-associated optic neuropathies
18:30 - 18:50	James Tribble	TNFα, IL1α, and C1q drive rapid metabolic changes in the retina and optic nerve
18:50 - 19:00	**Jonathan Crowston, Franz Grus & Keith Martin: Close and suggestions for 2027**	