



10th Optic Nerve Meeting
13-15 December 2022
Obergurgl, Austria
AGENDA

Tuesday 13 December

8:20 - 8:30	Jonathan Crowston, Franz Grus & Keith Martin	Welcome and Introduction
Session I: RGC Injury and Repair		
Moderators: James Morgan & Katharina Bell		
8:30 - 8:50	Ben Sivyer	RGC dysfunction before death in primate glaucoma
8:50 - 9:10	Vicki Chrysostomou	From repair to degeneration
9:10 - 9:30	Jesse Gale	Inversion as a provocative test of ocular biomechanics
9:30 - 9:50	Andrea Loreto	Can we block axon degeneration in disease?
9:50 - 10:00	Melissa Jöe	Development of neuroprotective small molecular drugs targeting NMNAT2

Morning Tea

Session II: Neurodegeneration

Moderators: Adriana Di Polo & Jesse Gale

10:30 - 10:50	James Morgan	BDNF and platelets (ONC and explants)
10:50 - 11:10	Len Levin	Phospholipids and the Signaling of Axoptosis
11:10 - 11:30	Bob Casson	Photobiomodulation
11:30 - 11:50	Christian Behl	The co-chaperone BAG3 as hub for selective autophagy on demand
11:50 - 12:00	Alessio Canovai	Pyroloquinoline quinone exerts neuroprotective effects on retinal ganglion cell degeneration

Lunch Break

Session III: ipRGC development and function

Moderators: Dan Milea & Ben Sivyer

17:30 - 17:50	Michel Cayouette	ipRGC-glia interaction during development regulates circadian photoentrainment
17:50 - 18:10	Tiffany Schmidt	Genetic underpinnings of ipRGC diversity
18:10 - 18:30	Samer Hatter	ipRGC's role in vision
18:30 - 18:50	Nina Milosavljevic	Tracing ipRGCs in the mouse brain

Wednesday 14 December

Session IV: Neuroinflammation and Glia

Moderators: Franz Grus & Vicki Chrysostomou

8:30 - 8:50	Thora Karadottir	Activity dependent myelin changes in the optic nerve
8:50 - 9:10	Jeff Goldberg	Optic nerve astrocytes: A new axis for neuroprotection
9:10 - 9:30	Tim Kennedy	Synthetic synapses to restore neural circuits
9:30 - 9:50	Elena Vecino	Implication of Müller glia in Glaucoma
9:50 - 10:00	Caridad Galindo-Romero	Glial response in the injured and contralateral retinas after unilateral optic nerve crush

Morning Tea

Session V: Recycling, Regeneration and Replacement

Moderators: Keith Martin & Caroline Manicam

10:30 - 10:50	Richard Eva	Targeting ER to golgi traffic for retinal neuroprotection and optic nerve regeneration
10:50 - 11:10	Nick Marsh-Armstrong	Deconstructing successful axonal regeneration
11:10 - 11:30	Lieve Moons	Intraneuronal and intercellular communication drive optic nerve regeneration
11:30 - 11:40	Katharina Bell	Intermittent fasting drives autophagy and mitophagy in the ageing retina but does it protect?
11:40 - 11:50	Markus Kuehn	Disruption of Checkpoint Genes in T-regulatory Cells Protects Retinal Ganglion Cells in Experimental Glaucoma

Lunch Break

Session VI: Development and Regeneration

Moderators: Lieve Moons & Nick Marsh-Armstrong

17:30 - 17:50	Tom Reh	Regenerating new functional ganglion cells from Muller glia in adult mouse retina
17:50 - 18:10	Andras Lakatos	Human neural organoid models: deciphering degeneration and regeneration at single cell resolution
18:10 - 18:30	Ed Levine	Molecular integration of Sonic Hedgehog, an RGC derived growth signal, into retinal development
18:30 - 18:50	Kevin Park	Axon guidance and target selection
18:50 - 19:10	Stefano Gandolfi	Glaucoma: neuroprotection trials

Thursday 15 December

Session VII: Mitochondria and Metabolism

Moderators: Bob Casson & Thora Karadottir

8:30 - 8:50	Pete Williams	Targeting NMNAT2 for neuroprotection in glaucoma
8:50 - 9:10	James Tribble	Preventing retinal homocysteine dysregulation protects against retinal ganglion cell death
9:10 - 9:30	Adriana Di Polo	Mitochondrial transport deficits in glaucoma: at the center of RGC metabolic stress?
9:30 - 9:50	Miriam Kolkó	Oxidative stress in glaucoma
9:50 - 10:00	Gloria Cimaglia	NAM protection in the rat model

Morning Tea

Session VIII: Replacement and Novel Technologies

Moderators: Tom Reh & Tiffany Schmidt

10:30 - 10:50	Volker Patzel	Novel RNA therapies
10:50 - 11:10	Marta Agudo-Barriuso	Mesenchymal stromal cell therapy: effect of the type of transplant
11:10 - 11:30	Tom Johnson	Engraftment of transplanted retinal ganglion cells
11:30 - 11:40	Caroline Manicam	Novel Vascular Adaptive Mechanisms of the Ophthalmic Artery: From Cell Signalling to (Patho)physiological Implications
11:40 - 11:50	Vasyly Rohovyy (patient)	Eye transplantation

Lunch Break

Session IX: Clinical Aspects

Moderators: Miriam Kolkó & Len Levin

17:30 - 17:50	Pete van Wijngaarden	Retinal hyperspectral imaging for neurodegenerative diseases
17:50 - 18:10	Wolf Lagreze & Sebastian Küchlin	Update on the TONE trial and current optic nerve protection trials
18:10 - 18:30	Ahnul Ha	Neuromodulation using a DREADD technique for glaucoma
18:30 - 18:40	Flora Hui	Functional tomography angiography: a non-invasive metabolic stress test targeting vascular regulation