



13th Optic Nerve Meeting

Obergurgl, Austria, 9-11th December 2025

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

| Tuesday 9 th December | | |
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| 8:30 - 8:40 | Keith, Jonathan & Franz | Welcome and Introduction |
| Session 1: Glial Influence in Optic Neuropathy | | |
| Chairs: Adriana Di Polo, Lukas Neukomm | | |
| 8:40 - 9:00 | QJ Cui | Fate mapping determines the roles of monocytes and microglia in glaucoma |
| 9:00 - 9:20 | Deborah Villafranca | cAMP Signaling and spatially resolved astrocyte diversity in glaucoma |
| 9:20 - 9:40 | James Tribble | Inflammation-driven metabolic dysfunction |
| 9:40 - 9:50 | Xandra Pereiro | Müller glia-RGC communication via extracellular vesicles |
| 9:50 - 10:00 | Athanasios Alexandris | Axonal degeneration and recovery after diffuse traumatic optic nerve injury: evidence for homotypic collateral sprouting and sex-dependent plasticity |
| Morning Tea | | |
| Session 2: Mitochondrial Dysfunction and Metabolism | | |
| Chairs: Elena Vecino, Franz Grus | | |
| 10:30 - 10:50 | Bledi Petriti | Reversing mitochondrial dysfunction in optineurin E50K glaucoma |
| 10:50 - 11:10 | Jeff Goldberg | Axon transport of mitochondria and mRNAs |
| 11:10 - 11:30 | Elena Vecino | Mitochondrial importance in RGC injury and repair |
| 11:30 - 11:50 | Luana Naia | Mitochondria-derived vesicles in ageing and neurodegeneration |
| 11:50 - 12:00 | Yasmin Alameddini | Mitochondrial DNA at the interface between mitochondrial dysfunction and neuroinflammation in glaucoma |
| Lunch Break | | |
| Session 3: Neurodegeneration | | |
| Chairs: Yang Hu, Giovanna Malucci | | |
| 17:30 - 17:50 | Bryan Jones | Retina: A model for neurodegeneration |
| 17:50 - 18:10 | Giovanna Malucci | Neurodegeneration and protein stress |
| 18:10 - 18:30 | Len Levin | Axon-to-axon signaling: A paradigm for progression in optic neuropathy |
| 18:30 - 18:40 | Jesse Gardner-Russell | Selective axonal injury depletes interpericyte tunnelling nanotubes |
| 18:40 - 18:50 | Lidia Sánchez-Puebla | The retina as a mirror of Alzheimer's Disease: Early structural and vascular alterations in the APPNL-F/NL-F mouse model |
| 18:50 - 19:00 | Seungsoo Rho | Nicotinamide trial in NTG patients |
| Wednesday 10 th December | | |
| Session 4: Regeneration and Repair Pathways | | |
| Chairs: Richard Eva, Luana Naia | | |
| 8:30 - 8:50 | Richard Eva | Optimising retinal neuroprotection and optic nerve regeneration by targeting axonal organelles |
| 8:50 - 9:10 | Adriana Di Polo | Neuronal revival: The insulin pathway to dendritic and synaptic regeneration after axonal injury |
| 9:10 - 9:30 | Robin Franklin | Schwann cells in the CNS |
| 9:30 - 9:50 | Yang Hu | Recent progress on optic nerve protection and regeneration |
| 9:50 - 10:00 | Carola Rutigliani | Netrin-1 as a dual guidance and regenerative cue following sheath-preserving optic nerve transection |
| Group Photo + Morning Tea | | |
| Session 5: Gene Therapy and Translational Platforms | | |
| Chairs: Alice Pébay, Keith Martin | | |
| 10:30 - 10:50 | Volker Patzel | Non-viral vectors for mitochondrial gene therapy |
| 10:50 - 11:10 | Alice Pébay | Can we use iPSCs to characterise heterogeneity in AMD? The case of reticular pseudodrusen |
| 11:10 - 11:30 | Pete Williams | Gene therapy targeting neuroprotection and neuroregeneration in glaucoma |
| 11:30 - 11:50 | Stavros Vagionitis | Neuronal activity bidirectionally regulates myelin plasticity |
| 11:50 - 12:00 | Steven Bergmans | A proof-of-concept study for single-nucleotide base editing to prevent vision loss in a Wolfram Syndrome mouse model |
| Lunch Break | | |
| Session 6: Vision Circuits and Synaptic Plasticity | | |
| Chairs: Pete Williams, Deborah Villafranca | | |
| 17:30 - 17:50 | Ben Sivyer | Melanopsin in high-acuity RGCs |
| 17:50 - 18:10 | Tas Khatib | CNTF-mediated rescue of circuit dysfunction |
| 18:10 - 18:30 | Christian van Oterendorp | Mechanosensitive responses of cultured RGCs |
| 18:30 - 18:50 | Luca Masin | Successful injury-induced axonal regeneration requires extensive dendritic remodelling |
| 18:50 - 19:00 | Greg Duncan | Remyelination protects retinal ganglion cells from dual leucine zipper kinase-mediated apoptosis |
| Thursday 11 th December | | |
| Session 7: Rapid-Fire | | |
| Chairs: Michel Cayouette, Len Levin | | |
| 8:30 - 8:40 | Andrew White | Role of Lactoferrin on RGC survival in a retinal explant model |
| 8:40 - 8:50 | Alan Nicol | Pyrroloquinoline quinone is a potent metabo- and gero- protective agent in C. elegans |
| 8:50 - 9:00 | Marcelino Aviles-Trigueros | Unveiling hidden complexity: Insights into an uncharacterized subtype of retinal ganglion cell |
| 9:00 - 9:10 | Ngan Pan Bennett Au | Neuronal-intrinsic mechanisms for effective nerve repair: therapeutic implications for glaucoma |
| 9:10 - 9:20 | Xiaosha Wang | Crybb3 promotes retinal ganglion cell axon regeneration via mTOR pathway activation |
| 9:20 - 9:30 | Qiong Ding | Evaluating AMPK activation as a strategy to enhance retinal ganglion cell survival and function in glaucoma |
| 9:30 - 9:40 | Marta Molinari | Modulation of miR-181a/b prevents glaucomatous optic neuropathy by improving mitochondrial dynamics and suppressing inflammation |
| 9:40 - 9:50 | Markus Kuehn | Altered distribution of T Cells in peripheral blood of patients with POAG |
| 9:50 - 10:00 | Valery I. Shestopalov | Inflammasome blockade strategies in optic neuropathies |
| Morning Tea | | |
| Session 8: Neuroprotection | | |
| Chairs: Jeff Goldberg, Katharina Bell | | |
| 10:30 - 10:50 | Antje Grosche | TSP0 maintains Müller Cell metabolic resilience under stress to preserve retinal homeostasis |
| 10:50 - 11:10 | Livia Carvalho | Drug-based interventions for cone preservation |
| 11:10 - 11:30 | John D. Ash | AMPK and mitochondria-targeted neuroprotection |
| 11:30 - 11:50 | Veronica Moreno | Cell type-targeted mitochondrial transplantation mediated by protein binders rescues cell degeneration |
| 11:50 - 12:00 | Eleonora Daghini | Targeting taurine metabolism for neuroprotection in a rat model of ocular hypertensive glaucoma |
| Lunch Break | | |
| Session 9: Transplantation, Stem cells and Organoid Models | | |
| Chairs: Tas Khatib, Andrea Loreto | | |
| 17:30 - 17:50 | Tim Kennedy | Making connections: guiding synaptic plasticity in the CNS |
| 17:50 - 18:10 | Michel Cayouette | Numb-mediated Tau lowering therapy |
| 18:10 - 18:30 | Luis Alarcon-Martinez | Specialised neuronal areas and blood supply: more than functional hyperemia |
| 18:30 - 18:50 | Keith, Jonathan & Franz | Close and suggestions for 2026 |