



7th Optic Nerve Meeting

12-14 December 2017

Obergurgl, Austria

AGENDA

Tuesday 12 December

- 8:20 - 8:30 Jonathan Crowston, Franz Grus & Keith Martin *Welcome and Introduction*
- Session I: Stem Cell Models**
Moderators: Alice Pebay & Hani Levkovitch-Verbin
- 8:30 - 8:50 Alexandra Grubman *Diverse microglia in Alzheimer's disease*
 8:50 - 9:10 Alice Pebay *Studying neurodegeneration using iPSCs*
 9:10 - 9:30 Markus Kuehn *Adoptive transfer of lymphocytes from human glaucoma patients causes loss of retinal ganglion cells in NOD/scid gamma mice*
 9:30 - 9:50 Katharina Bell *Fc Receptors influence ab uptake into Müller cells*

Morning Tea

Session II: Bioenergetics

- Moderators: Bob Casson & Colm O'Brien**
- 10:30 - 10:50 Ian Trounce *Amyloid precursor protein mediate protection from rotenone toxicity in-vitro and in the retina*
 10:50 - 11:10 Tony Khawaja *Mitochondrial genetic variation and its implications for glaucoma*
 11:10 - 11:30 Bob Casson *Bioenergetic neuroprotection in glaucoma*
 11:30 - 11:50 Colm O'Brien *Bioenergetics of lamina cribrosa fibroblasts*

Lunch Break

Session III: Mitochondrial Dysfunction and Turnover

- Moderators: Ian Trounce & Meagan McManus**
- 17:30 - 17:50 Guillermo Lopez-Domenech *Importance of mitochondrial transport and distribution for the maintenance of complex dendritic morphologies*
 17:50 - 18:10 Meagan McManus *mtDNA mutation, mitophagy and inflammation*
 18:10 - 18:30 Beatriz Villarejo Zori *Mitophagy in RGCs*
 18:30 - 18:50 Len Levin *Redox-dependent signaling in axonal degeneration*
 18:50 - 19:00 Sebastian Funke *McCP2 association with glaucoma and protein interactions in the retina*

Wednesday 13 December

- Session IV: Neuroinflammation**
Moderators: Franz Grus & Christian Behl
- 8:30 - 8:50 Christian Behl *BAG3-mediated selective autophagy in adaptation and disease*
 8:50 - 9:10 Sian Henson *Inflammation and t-cell metabolism*
 9:10 - 9:30 Dietmar Fischer *Microglia are irrelevant for neuronal degeneration and axon regeneration after acute injury*
 9:30 - 9:40 Vanessa Beutgen *Immunoproteomic profiling: identification of novel biomarker candidates in glaucoma*
 9:40 - 9:50 Evy Lefeverre *MMP-3 mediates retinal inflammation and provides neuroprotection after optic nerve injury*

Morning Tea

Session V: Inner Plexiform Layer

- Moderators: James Morgan & Gareth Howell**
- 10:30 - 10:50 Adriana Di Polo *Seeing is believing: live imaging of microvascular pathology in glaucoma*
 10:50 - 11:10 Gareth Howell *If it's all about the ONH, why study the IPL?*
 11:10 - 11:30 James Morgan *Alterations in human IPL, dendrites, mitochondria and synapses.*
 11:30 - 11:40 An Beckers *Recapitulation of the developmental of neurite outgrowth order as a prerequisite for successful CNS repair in zebrafish*
 11:40 - 11:50 James Tribble *BDNF treatment given post-injury, protects RGCs in experimental glaucoma*

Lunch Break

Session VI: Glia-Axon Interactions

- Moderators: Ragnhildur Thora Karadottir & Robin Franklin**
- 17:30 - 17:50 Miriam Kolko *Mitochondrial function in Müller cells*
 17:50 - 18:10 Ragnhildur Thora Karadottir *Regulation of myelination by neuronal activity*
 18:10 - 18:30 Andras Lakatos *Neuronal help-me signals in astrocyte-mediated repair and neurodegeneration*
 18:30 - 18:40 Oliver Gramlich *Function of IL-33/ST2 signaling in glaucoma*
 18:40 - 18:50 Carsten Schmelzer *Discovery and targeted MS-based strategies for the identification of glaucoma-related IgG V domain peptides*

Thursday 14 December

- Session VII: Ageing and Senescence**
Moderators: Jonathan Crowston & Peter van Wijngaarden
- 8:30 - 8:50 Pete Williams *Ageing, neuronal metabolism and mitochondria in glaucoma*
 8:50 - 9:10 John Fingert *TBK1 and normal tension glaucoma*
 9:10 - 9:30 Giovanna Mallucci *RBM3 and synapse regeneration in neurodegeneration*
 9:30 - 9:50 Robin Franklin *Adult CNS progenitors, myelin and ageing*

Morning Tea

Session VIII: Heavy Metals, Excitability and Mechanosensitivity

- Moderators: Steve Petrou & Peter Crouch**
- 10:30 - 10:50 Steve Petrou *ASO therapy in epileptic encephalopathy*
 10:50 - 11:10 Peter Crouch *Copper and its biochemical and therapeutic role in amyotrophic lateral sclerosis*
 11:10 - 11:30 Tatjana Jakobs *Gene expression and function in reactive astrocytes*
 11:30 - 11:40 Craig Pearson *Modifying chondroitin sulfation enhances retinal ganglion cell axon regeneration in the mouse optic nerve*
 11:40 - 11:50 Kota Sato *The neuroprotective effect of hesperidin in NMDA-induced retinal injury*

Lunch Break

Session IX: Axonal Transport

- Moderators: Keith Martin & Richard Eva**
- 17:30 - 17:50 Richard Eva *Targeting PI3 kinase to promote axon transport and regeneration in the adult CNS*
 17:50 - 18:10 Geoff Norris *Molecular mechanism of microglia-mediated clearance of neuronal debris after optic nerve crush*
 18:10 - 18:30 Peter van Wijngaarden *Lactate transport in the optic nerve*
 18:30 - 18:50 Herbert Reitsamer *What I want from a non-IOP lowering glaucoma treatment*
 18:50 - 19:00 Keith Martin, Franz Grus and Jonathan Crowston *The final act*