



# 8th Optic Nerve Meeting

11-13 December 2018

Obergurgl, Austria

## PRELIMINARY AGENDA

### Tuesday 11 December

8:20 - 8:30	Jonathan Crowston, Franz Grus & Keith Martin	<i>Welcome and Introduction</i>
<b>Session I: Bioenergetics</b>		
<b>Moderators: Pete Williams &amp; Jonathan Crowston</b>		
8:30 - 8:50	Peter van Wijngaarden	<i>Bioenergetics of the optic nerve</i>
8:50 - 9:10	Pete Williams	<i>Targeting neuronal mitochondria for neuroprotection in glaucoma</i>
9:10 - 9:30	Grace Zhai	<i>A balance of NAD<sup>+</sup> metabolism and proteostasis in NMNAT<sub>1</sub> mediated neuroprotection</i>
9:30 - 9:50	Guy Lenaers	<i>Genetic, physiopathology and metabolic analyses of dominant optic neuropathies, towards defining future therapies</i>
<b>Morning Tea</b>		
<b>Session II: Inner Retina and Optic Nerve Regeneration</b>		
<b>Moderators: Bryan Jones &amp; Keith Martin</b>		
10:30 - 10:50	Richard Eva	<i>Enabling optic nerve regeneration through the mobilisation of axon growth machinery</i>
10:50 - 11:10	Lieve Moons	<i>Inflammatory stimulation as fuel for axon regeneration: elucidating underlying cellular and molecular players</i>
11:10 - 11:30	Michel Cayouette	<i>Regulating intraneuronal Tau levels in retinal ganglion cells</i>
11:30 - 11:40	Tasneem Khatib	<i>Axon transport and regeneration following glaucomatous injury</i>
11:40 - 11:50	Rachel Evans	<i>Manipulation of the PI3-kinase pathway to promote RGC axon regeneration in vivo using the optic nerve crush model</i>
<b>Lunch Break</b>		
<b>Session III: Autophagy</b>		
<b>Moderators: Katharina Bell &amp; Christian Behl</b>		
17:30 - 17:50	Albrecht Clement	<i>DNAJC13, a Parkinson's disease-associated gene, modulates autophagy</i>
17:50 - 18:10	Jochen Weishaupt	<i>Molecular genetics of the ALS- and glaucoma-associated TBK1</i>
18:10 - 18:30	Christian Behl	<i>Autophagy as adaptive process in neuronal cells</i>
18:30 - 18:50	Christian Behrends	<i>Identifying machinery and cargo of selective autophagy</i>

### Wednesday 12 December

<b>Session IV: Neuroinflammation</b>		
<b>Moderators: Franz Grus &amp; Miriam Kolko</b>		
8:30 - 8:50	Miriam Kolko	<i>Systemic implications of glaucomatous optic neuropathy</i>
8:50 - 9:10	Alyson Fournier	<i>14-3-3 proteins and CNS regeneration</i>
9:10 - 9:30	Katharina Bell	<i>14-3-3 proteins in glaucoma</i>
9:30 - 9:40	Carsten Schmelter	<i>CDR peptides in glaucoma</i>
9:40 - 9:50	Vanessa Beutgen	<i>Analysis of autoantibodies in glaucoma subtypes</i>
<b>Morning Tea</b>		
<b>Session V: Electrical Activity to Neuronal Biointerfaces</b>		
<b>Moderators: Manohar Bance &amp; Damiano Barone</b>		
10:30 - 10:50	Manohar Bance	<i>Machine-neural interfaces in auditory disorders</i>
10:50 - 11:10	Damiano Barone	<i>Restoring lost function: challenges and prospects in neural interface technology</i>
11:10 - 11:30	Alejandro Carnicer	<i>Mechano-biology challenges in neuro-prosthetics and peripheral nerve injury</i>
11:30 - 11:40	Christian van Oterendorp	<i>Influence of polyacrylamide gel substrates on primary retinal ganglion cell culture</i>
<b>Lunch Break</b>		
<b>Session VI: Innovation and Translation</b>		
<b>Moderators: Darren Kelly</b>		
17:30 - 17:50	Leonard Levin	<i>Challenges to translating treatments for optic neuropathies</i>
17:50 - 18:10	Darren Kelly	<i>Molecules to medicine: lessons from developing antifibrosis drugs for eye disease</i>
18:10 - 18:30	David Mackey	<i>Glaucoma genetics - what it tells us about disease pathogenesis</i>
18:30 - 18:40	Jessica Tang	<i>The short-term effect of intraocular pressure reduction on the photopic negative response in glaucoma</i>

### Thursday 13 December

<b>Session VII: Glial-Neural Interactions</b>		
<b>Moderators: Thora Karadottir &amp; Andras Lakatos</b>		
8:30 - 8:50	Andras Lakatos	<i>Neuronal help-me signals in astrocyte-mediated repair and neurodegeneration</i>
8:50 - 9:10	Tom Johnson	<i>Retinal integration of transplanted stem cells as a fundamental step towards RGC replacement therapy</i>
9:10 - 9:30	Aiman Saab	<i>Studying axon-glial signaling and axonal energy metabolism in the optic nerve</i>
9:30 - 9:50	Sarah Förster	<i>Functional heterogeneity of oligodendrocytes in the CNS</i>
9:50 - 10:00	Seungsoo Rho	<i>Chronic ocular hypertensive rat model using various microbeads</i>
<b>Morning Tea</b>		
<b>Session VIII: Sick Ganglion Cells</b>		
<b>Moderators: Leonard Levin &amp; Elena Veccino</b>		
10:30 - 10:50	Claire Mitchell	<i>Linking IOP elevation to microglial cell activation through ATP</i>
10:50 - 11:10	Elena Veccino	<i>How Müller glia help RGCs</i>
11:10 - 11:30	Grace Lidgerwood	<i>Engineering a human retina in a dish using patient iPSC-derived retinal cells</i>
11:30 - 11:50	Vicki Chysostomou	<i>Exercise promotes RGC functional recovery</i>
11:50 - 12:00	Daun Jeong	<i>Effect of refractive error on the physiologic thinning rate of retinal nerve fiber layer in healthy eyes</i>
<b>Lunch Break</b>		
<b>Session IX: Synaptic Remodelling</b>		
<b>Moderators: James Morgan</b>		
17:30 - 17:50	James Morgan	<i>Dendritic remodelling in human glaucoma</i>
17:50 - 18:10	Bryan Jones	<i>Connectomics frameworks for ganglion cell connectivity</i>
18:10 - 18:20	Yuhong Dong	<i>Preliminary observations from a pilot study on the effects of SRG003 in spontaneous idiopathic Optic Atrophy in the rhesus monkey</i>
	Keith, Franz and Jonathan	<i>Brief wrap up and solicit suggestions for next Obergurgl 2019</i>