

Course Director:

Frank G. Holz (Germany)

Program Committee:

Frank G. Holz, Christian Brinkmann, Monika Fleckenstein, Steffen Schmitz-Valckenberg, Department of Ophthalmology, University of Bonn, Germany

Faculty & Guest Speakers:

Usha Chakravarthy (UK), Christine A. Curcio (USA), Alastair Denniston (UK), Nicole Eter (Germany), Oliver Findl (Austria), Roberto Gallego-Pinazo (Spain), Christopher A. Girkin (USA), Jost Jonas (Germany), Christopher Leung (Hong Kong), Sandra Liakopoulos (Germany), Christian Mardin (Germany), John B. Miller (USA), Srinivas R. Sadda (USA), Patrick Sibony (USA), Giovanni Staurenghi (Italy), Adnan Tufail (UK), Robert N. Weinreb (USA), Sebastian Wolf (Switzerland), Seung-Young Yu (South Korea), Sandrine Zweifel (Switzerland)

07.45 Registration and Welcome Coffee

New Imaging Modalities I – A Closer Look? Moderators: Sandrine Zweifel, Frank G. Holz

08.45 Welcome Note – *Frank G. Holz*

08.50 **Gerhard Zinser Memorial Lecture – Robert N. Weinreb**

09.00 Dual Wavelength OCT & High Resolution In Vivo Fundus Angiography – *Adnan Tufail*

09.20 The Future of Uveitis Care: Quantitative Imaging – *Alastair Denniston*

09.40 OCT in Unconscious and Systemically Unwell Patients Using the SPECTRALIS FLEX Module – *Aditya Kale*

09.50 qAF – Improved Methods for In-Depth Analysis of the Healthy and Diseased Retina – *Thomas Ach*

10.00 Quantitative Fundus Autofluorescence – Novel Perspectives – *Martin Gliem*

10.10 Various Autofluorescence Modes in Stargardt Disease – *Philipp Müller*

Update Fluorescence Lifetime Imaging Ophthalmoscopy (FLIO)

10.20 Fluorescence Lifetime Imaging Ophthalmoscopy – Principles and Applications – *Chantal Dysli*

10.30 Hydroxychloroquine (Plaquenil) Toxicity Investigated with FLIO – *Lydia Sauer*

10.40 FLIO Patterns in Clinically Unaffected Children of MacTel Patients – *Paul S. Bernstein*

10.50 **Panel Discussion – Moderators: Sandrine Zweifel, Frank G. Holz**

11.00 Coffee Break

Multimodal Imaging – Update & New Applications! Moderators: Usha Chakravarthy, John B. Miller

11.30 Update on Classification of Neovascular AMD – *Roberto Gallego-Pinazo*

11.50 Staging of Pachychoroid Spectrum – *Seung-Young Yu*

12.10 Multimodal Imaging of Reticular Pseudodrusen – *Sandrine Zweifel*

12.30 Probing Reality in Anti-VEGF-Therapy – Learnings from the ORCA Project – *Steffen Schmitz-Valckenberg*

12.40 SPECTRALIS OCT, OCTA and FFA to Assess IRMA and New Vessels in Diabetic Retinopathy – *James Talks*

12.50 **Panel Discussion – Moderators: Usha Chakravarthy, John B. Miller**

13.00 Lunch – Poster Session starts at 13.45

New Imaging Modalities II – Hot or Not? Moderators: Adnan Tufail, Oliver Findl

14.30 Retinal Nerve Fiber Layer Optical Texture Analysis – *Christopher Leung*

14.50 SS-OCT Biometry – A Step Forward? – *Oliver Findl*

15.10 SD-OCT vs. SS-OCT – Pros and Cons? – *Giovanni Staurenghi*

15.30 Viewed from Different Angles: Sparing Phenomena in Retinal Disease – *Monika Fleckenstein*

15.40 High Magnification Module – *Wolf Harmening*

15.50 **Panel Discussion – Moderators: Adnan Tufail, Oliver Findl**

16.00 Coffee Break & Posters

OCT Imaging I – Retina! Moderators: Nicole Eter, Sebastian Wolf

16.30 Diabetic Macular Edema: Structure Function Relationships – *Usha Chakravarthy*

16.50 The x,y,z,t of AMD: Microarchitecture and Timeline of Geographic Atrophy – *Christine A. Curcio*

17.10 Structure & Function in MacTel Revisited – *Frank G. Holz*

OCT in Population-Based Studies

17.30 The Gutenberg Health Study – *Stefan Nickels*

17.45 Variations in RNFL and Associations – New Insight from Epidemiological Studies – *Robert P. Finger*

18.00 **Panel Discussion – Moderators: Nicole Eter, Sebastian Wolf**

18.10 **END / Reception**

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07.30 Welcome Coffee

Artificial Intelligence and Big Data – Hype or Hope? Moderators: Steffen Schmitz-Valckenberg, Srinivas Sadda

08.30 Machine Learning & Big Data in Retinal Disease – *Adnan Tufail*

08.50 Imaging and Artificial Intelligence – *Nicole Eter*

09.10 Analysis of Biomarkers from OCT Scans – *Sebastian Wolf*

09.30 Artificial Intelligence for Morphology-Based Function Predictions – *Maximilian Pfau*

09.40 Panel Discussion – Moderators: Steffen Schmitz-Valckenberg, Srinivas Sadda

09.50 Coffee Break

Optical Coherence Tomography Angiography – Standard of Care Soon? Moderators: Seung-Young Yu, Giovanni Staurenghi

10.20 OCTA vs. En Face OCT: Examining the Choroidal Vasculature in AMD – *John B. Miller*

10.40 New Insights into the 3-D Retinal Microcirculation Revealed by High-Resolution OCTA – *Srinivas R. Sadda*

11.00 Chorioretinal Vascular Reactivity in Central Serous Chorioretinopathy – *Marco Lupidi*

11.10 Automatic vs. Manual Segmentation in AMD – *Sandra Liakopoulos*

11.30 OCTA in Glaucoma - Flow or Show? – *Robert N. Weinreb*

11.50 Panel Discussion – Moderators: Seung-Young Yu, Giovanni Staurenghi

12.00 Lunch – Poster Session starts at 12.45

OCT Imaging II – Glaucoma & Optic Neuropathies! Moderators: Christopher Leung, Jost Jonas

13.30 “Deep Optic Nerve” Changes in Glaucoma? – *Christopher A. Girkin*

13.50 Gaze Evoked Deformations of the Optic Nerve Head – *Patrick Sibony*

NEW Glaucoma Imaging Atlas – Authors on Stage! Moderators: Robert N. Weinreb, Christian Mardin

14.10 Anatomy of the Optic Nerve Head in Myopia and Glaucoma – *Jost Jonas*

14.30 Multifactorial Holistic Glaucoma Diagnosis – *Marta Pazos via offline Video Presentation*

14.45 SD-OCT and Visual Fields: Early Diagnosis of Progressive Glaucomatous Damage – *Christian Mardin*

14.50 A Posterior Vitreous Detachment Obscures the Extent of Glaucomatous Damage – *Christopher A. Girkin*

14.55 Monitoring Glaucomatous Damage Confounded by an Epiretinal Membrane – *Robert N. Weinreb*

15.00 Panel Discussion – Moderators: Robert N. Weinreb, Chris A. Girkin, Christian Mardin

15.10 Coffee Break & Posters - Glaucoma Imaging Atlas for Sale

OCT Imaging III – Glaucoma & More! Moderators: Robert N. Weinreb, Christopher A. Girkin

15.40 Myopic Discs in Glaucoma – *Christian Mardin*

16.00 Glaucoma Progression Analysis – *Christopher Leung*

16.20 The Question of Larger or Lesser – Disk Size Matters in OCT Diagnostic – *Christian Brinkmann*

16.30 ReLayer: New Free Cross-Platform Algorithm for the Segmentation of Layers in OCT Images – *Giovanni Montesano*

16.40 How to Quantify Bruch’s Membrane Calcification in Pseudoxanthoma Elasticum? – *Sara Risseuw*

16.50 OCT External Retinal Bands Interpretation Based on Immunohistochemistry Findings – *Isabel Pinilla*

17:00 Effects of Persistent Choroidal Folds Following Long Duration Space Flight – *Tyson Brunstetter*

17.10 Closing Remarks