Time	SATURDAY 19th July SCHEDULE 8.30 am to 17.30pm	
	Human Course	**Animal Course**
8.30-8.45 15 mins	**Introduction to the course, faculty, expectations and structure** ***Dorothy Thompson***	
8.45-9.30 45 mins	**Introduction to Full field ERGs** ***Suresh Viswanathan*** Physiology of ERGs (Basic components, Cellular sources, Functional relationships (Naka-Rushton)) ISCEV Full field ERG Standard (Recording protocols and their physiological basis) Additional diagnostic resources (a-wave modelling, PhNR, On-Off-, chromatic and S-cone stimulation)	
9.30-10.15 45 mins	**Clinical application of full field ERG** ***Graham Holder*** Interpreting ISCEV Full field standard ERGs (Patterns of change to track down the underlying pathophysiology) Diagnostic challenges in health and disease (distinguishing rod and cone photoreceptor contributions, limited vs. generalised disease, negative ERGs)	
10.15-10.45 30 mins	**30 minutes COFFEE/TEA**	
10.45-11.30 45 mins	**Techniques of VEP recording** ***Michael Bach***	**Fundamentals of ERG in animal models** ***Bo Lei*** Recording in animals (equipment and materials) 'ISCEV' standard (basic and extended tests)
11.30-12.15 45 mins	**Clinical applications of the VEP** ***Graham Holder***	**ERG in retinal research I (outer retina)** ***Naoyuki Tanimoto*** Experimental use of ERG in inherited diseases affecting RPE, photoreceptors and bipolar cells
12.15-13.00 45 mins	**45 minutes SANDWICH LUNCH**	
13.00-13.30 30 mins	**EOG recording and its clinical applications** ***Paul Constable***	**ERG in retinal research II (inner retina)** ***Suresh Viswanathan*** Experimental use of ERG, PHNR & PERG with focus on Glaucoma & ON disease in rats & large animals.
13.30-13.55 25 mins 13.55-14.15 20 minutes	**Clinical application of non-standard ERGs** *(red flash & S-cone)* ***Chris Hogg*** **Recognising everyday common artefacts** ***Ruth Hamilton***	**ERG in Preclinical Therapy Assessment** ***Mathias Seeliger*** ERG recordings as functional biomarker Follow up of therapeutic interventions in pre clinical models of rod (RP) and cone (ACHM2) disease
14.15-15.00 45 mins	**Techniques to localise retinal stimulation** **PERG & mfERG** ***Michael Bach***	**ERG PRACTICAL DEMONSTRATIONS** ***Mathias Seeliger & all faculty*** 3 stations x 20 minutes,ERG demonstrations with a rodent phantom (light-sensitive, "artificial" mouse/rat
15.00-15.30 30 mins	**30 minutes COFFEE/TEA**	
15.30-16.15 45 mins	**Clinical application of PERG and mfERG** ***Scott Brodie***	**Time with ERG manufacturers**
16.15-17.30 75 mins	**CLINICAL PRACTICAL DEMONSTRATIONS** 3 stations x 20 minutes 2 instructors /station 1) PERG and PVEP 2) Full field ERG 3) mfERG	*Animal course* *free time*
19.00	**COURSE DINNER with faculty** **local restaurant**	

Time	SUNDAY 20th July SCHEDULE 8.30 am -16.00 pm	
	Human Course	**Animal Course**
8.30-9.00 30 minutes	**An electrophysiological approach to retinal dystrophies** ***Graham Holder***	
	Impact of ERG in animal models for understanding, diagnosing and follow-up of human disease Experimental ERG in the discovery of novel aspects of retinal function Diagnostic insights to better understand the underlying pathophysiology ERG recordings in the pre-clinical evaluation and preparation of human therapeutic interventions	
9.05-9.35 30 minutes	**Part I: outer retina and the first synapse** ***Mineo Kondo***	
9.40-10.10 30 minutes	**Part II: Inner retina and optic nerve** ***Laura Frishman***	
10.15-10.45 30 mins	**30 minutes COFFEE/TEA**	
10.45-11.30 45 minutes	**Paediatric ERG recording** ***Anne Fulton*** Maturation of the ERG, recording ERGs in premature infants and neonates	**Preclinical Imaging (OCT, SLO)** ***Mathias Seeliger*** OCT, SLO & angiography as structural biomarkers, preclinical models & therapeutic interventions
11.30-12.15 45 minutes	**Paediatric techniques in a clinical setting** ***Dorothy Thompson*** Combining ERGs and VEPs in an outpatient clinical setting and electrophysiological surveillance	**Imaging PRACTICAL DEMONSTRATION** ***Mathias Seeliger + all faculty*** 2 stations x 20 minutes, demonstrations of SLO/OCT experimental *in vivo* imaging
12.15-13.00 45 minutes	**45 minutes SANDWICH LUNCH**	
13.00-13.45 45 minutes	**What do I need to do to set up a lab** *Chris Hogg* General considerations (shielded room, isolation, power cables, accessibility) Scope of diagnostics (which tests which age group) **Equipment Comparison** What do I need to know before I buy? Technical considerations (amplifiers, filters, flexibility of programming, stimulators, external triggers) How to make a dummy patient photocell **Equipment questionaire**	
13.45 -14.15 30 minutes	**Armchair questions with all faculty**	
14.15-15.00 45 minutes	**Comprehensive Clinical Visual Electrodiagnostics** ***Graham Holder*** An overview and integration of the clinical test findings	**Comprehensive Animal Diagnostics** ***Naoyuki Tanimoto*** Complementary phenotyping of animal models based on ERG and imaging techniques
15.00-15.30 30 mins	**30 minutes COFFEE/TEA**	
15.30-16.00 30 minutes	**Time with manufacturers** comparison of specifications & practise	**Time with imaging manufacturers** comparison of specifications & practise
16.00	**COURSE FINISH and FEEDBACK**	