

31st International Pupil Colloquium
13-17th September 2015, Pembroke College, University of Oxford

	Sunday 13th	Monday 14th	Tuesday 15th	Wednesday 16th	Thursday 17th
08:00 to 9:00		Breakfast	Breakfast	Breakfast	Breakfast
09:00 to 10:45		Session 1 (1 hour 45 mins) Autonomic Nervous System	Session 5 (2 hours) JSPS symposium - Role of ipRGCs / Melanopsin / Light flux sensing / Blindsight	Session 9 (1 hour 45 mins) Optics, pupil size and vision	Good Byes!
10:45 to 11:30		Coffee break & Poster session	Coffee break & Poster session	Coffee break & Poster session	
11:30 to 13:15		Session 2 (1 hour 45 mins) Novel clinical applications of Pupillometry	Session 6 (1 hour 45 mins) JSPS Symposium - Pupil in Blindsight studies Loewenfeld lecture (Professor Russell Foster)	Session 10 (1 hour 30 mins) JSPS symposium - Non-human pupils - Comparative studies	
13:15 to 14:15		Lunch	Lunch	Excursion to Blenheim Palace	
14:15 to 16:00	Delegates arrive late afternoon / Registration	Session 3 (1 hour 45 mins) JSPS symposium - Emotional and cognitive pupil responses	Session 7 (1 hour 45 mins) Chromatic pupillometry / Clinical applications / ipRGCs / Melanopsin		
16:00 to 16:30		Coffee break & Poster session	Coffee break & Poster session		
16:30 to 18:00	Drinks reception	Session 4 (1 hour 45 mins) Pupil Pharmacology	Session 8 (1 hour 30 mins) JSPS symposium - Free papers session		
18:00 to 19:00		Free time		Drinks reception	
19:00 to 21:00	Welcome dinner (Pembroke College)	Dinner (Pembroke College)	Free evening in Oxford	Gala dinner (Pembroke College)	

Oral Presentations: Monday 14th September



14 Sept (Monday) 9:00 to 10:45	Session 1	Time	Title of presentation	Authors
	Autonomic Nervous System Chairs: Fion Bremner / Helmut Wilhelm	9:00	*The autonomic nervous system (30 mins)	Fion Bremner
		9:30	#Pupil examination - a clinical perspective (30 mins)	Helmut Wilhelm
		10:00	^c A New Pupil Light Reflex Test for Detecting Optic Neuropathy Independent of the Fellow Eye Which Highly Correlates to Visual Field Volume (15 mins)	Pieter Poolman and Randy Kardon <i>Presented by Randy Kardon</i>
		10:15	^c Diurnal variation of pupillometric relative afferent pupillary defect in normal subjects and glaucoma patients (15 mins)	Audrey Shwe-Tin, Guy Smith, Fion Bremner and Ian Murdoch
10:30		^c Objective Analysis of Retinal Function using chromatic Pupillography in advanced Retinitis Pigmentosa and the relationship to the electrically evoked phosphene thresholds (15 mins)	Carina Kelbsh, Fumiatsu Maeda, Jolanta Lisowska, Lukasz Lisowski, Torsten Strasser, Krunoslav Stingl, Barbara Wilhelm, Helmut Wilhelm and Tobias Peters	

14 Sept (Monday) 11:30 to 13:15	Session 2	Time	Title of presentation	Authors
	Novel clinical applications of Pupillography Chairs: Randy Kardon / Aki Kawasaki	11:30	*A pupil for all seasons: seasonal variation of the pupil light reflex (30 mins)	Mirjam Münch and Aki Kawasaki
		12:00	#Multifocal pupillography identifies changes in visual sensitivity according to severity of diabetic retinopathy in type 2 diabetes (30 mins)	Ted Maddess, Chris Nolan, Andrew James, Alicia Jenkins and Faran Sabeti
		12:30	^c The Post Illumination Pupil Response (PIPR) in Seasonal Affective Disorder (15 mins)	Kathryn Roecklein, Shannon Donofry, Megan Miller, Aidan Wright and Paul Gamlin
		12:45	^c Characterization of the pupillary response in epilepsy patients using the multifocal objective pupillographic perimetry (15 mins)	Eman Ali, Christian Lueck, Kate Martin, Angela Borbelj and Ted Maddess
13:00		^c Validation of the Pupillometric Index of Melanopsin Response (15 mins)	Christopher Tyler, Lora Likova and Spero Nicholas	

* Keynote talk # Invited talk ^c Contributed talk





Oral Presentations: Monday 14th September

	Session 3	Time	Title of presentation	Authors
14 Sept (Monday) 14:15 to 16:00	JSPS symposium - Emotional and cognitive pupil responses Chairs: Jonathan Erichsen / Hannah Smithson	14:15	*Using the pupillary light response to study encoding and maintenance of visual working memory (30 mins)	Sebastiaan Mathôt, Tessel Blom and Stefan Van der Stigchel
		14:45	#Pupillometry: A window to the emotions? (30 mins)	Jonathan Erichsen, Robert Snowden, Katherine O'Farrell, Daniel Burley, Naomi Newton and Nicola Gray
		15:15	#Pupillary measurements reveal psychological and biological status - JSPS Symposium Invited Speaker (15 mins)	Atsuhiko Iijima
		15:30	°Electrophysiological and pupillary correlates of inhibitory control under load (15 mins)	Piril Hepsomali, Simon Liversedge, Julie Hadwin, Federica Degno and Matthew Garner
		15:45	°Evaluation of psychological state based on pupillary changes under variable luminosity (15 mins)	Kenta Tomioka, Takehiko Bando and Atsuhiko Iijima
	Session 4	Time	Title of presentation	Authors
14 Sept (Monday) 16:30 to 18:15	Pupil Pharmacology Chairs: Elemer Szabadi / Anja Horn	16:30	*What Is a Positive Apraclonidine Test for Horner's Syndrome? (30 mins)	Randy Kardon and Chris Kirkpatrick
		17:00	#Latent pupil dilation to light: unmasking by clonidine (30 mins)	Elemer Szabadi, Asit Biswas, Robert Langley and Christopher Bradshaw
		17:30	°Reward sensitivity and motivation indexed by pupillary response (15 mins)	Kinan Muhammed, Michael Ben Yehuda, Sanjay Manohar and Masud Husain
		17:45	°Dopamine modulates the pupillary response to reward (15 mins)	Sanjay Manohar and Masud Husain
		18:00	°GABAergic innervation of the ciliary ganglion in different vertebrate species (15 mins)	Anja Horn, Miriam Barnerssoi, Inca Schneider, Jonathan Erichsen and Paul May

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Oral Presentations: Tuesday 15th September

15 Sept (Tuesday) 9:00 to 11:00	Session 5	Time	Title of presentation	Authors
	JSPS symposium - Role of ipRGCs / Melanopsin / Light flux sensing / Blindsight Chairs: Paul Gamlin / Sei-ichi Tsjumura	9:00	JSPS opening remarks, current programmes, research fellowships (15 mins)	Chigusa Ogaya and Takafumi Okada
		9:15	*Intrinsically-photosensitive Ganglion Cells in the Primate Retina: Anatomy, Physiology and Behavioural Roles (30 mins)	Paul Gamlin
		9:45	#The ganzfeld-evoked pupil response to cone- and melanopsin-stimulation (30 mins)	Seiichi Tsujimura
		10:15	°Biophysics of signal generation by Intrinsically Photosensitive Retinal Ganglion Cells (15 mins)	Michael Do
		10:30	°ipRGCs and IOP (15 mins)	Paul Richter, Torsten Strasser, Barbara Wilhelm, Helmut Wilhelm and Carina Kelbsch
10:45	°Pupil orienting responses coordinated by the superior colliculus (15 mins)	Chin-An Wang and Douglas Munoz		

15 Sept (Tuesday) 11:30 to 13:15	Session 6	Time	Title of presentation	Authors
	JSPS Symposium - Pupil in Blindsight studies Chairs: Arash Sahraie / Masatoshi Yoshida	11:30	#Vision and eye movements in blindsight - JSPS Symposium Invited Speaker (15 mins)	Masatoshi Yoshida
		11:45	#Efficacy of pupil responses elicited to grating stimuli for detection of visual processing in hemianopia (15 mins)	Arash Sahraie, Mary-Joan MacLeod, Ceri Trevethan and Larry Weiskrantz
		12:00	°Localising gain-control in the subcortical pupillary pathway (15 mins)	Corinne Carle, Andrew James, Yanti Rosli and Ted Maddess
		12:15	Introduction to Loewenfeld Lecture (5 + 5 mins)	Randy Kardon / John Barbur
12:25	Loewenfeld Lecture (50 mins)	Russell Foster		

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Oral Presentations: Tuesday 15th September



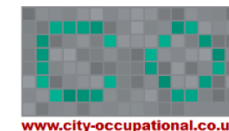
	Session 7	Time	Title of presentation	Authors
15 Sept (Tuesday) 14:15 to 16:00	Chromatic pupillometry / Clinical applications / ipRGCs / Melanopsin Chairs: Barbara Wilhelm / Ted Maddess	14:15	*Development of a chromatic pupillography protocol for the first gene therapy trial in patients with CNGA3-linked achromatopsia (30 mins)	Barbara Wilhelm, Tobias Peters, Fumiatsu Maeda, Jolanta Lisowska, Lukasz Lisowski, Carina Kelbsch, Torsten Strasser, Ditta Zobor, Helmut Wilhelm and Dominik Fischer
		14:45	#Pupil responses to selective wavelength (colored) light stimulation in healthy and retinal degeneration mouse models (30 mins)	Corinne Kostic, Sylvain Crippa, Catherine Martin, Randy Kardon, Yvan Arsenijevic and Aki Kawasaki
		15:15	^c Melanopsin richer photopically metameric lights experienced in a simulated sports field environment are perceived as relatively brighter (15 mins)	Sam Berman, Bradley Schlesselman and Brian Liebel
		15:30	^c Brightness perception of metamers that light a simulated sports field depends on metamer melanopsin content (15 mins)	Sam Berman, Bradley Schlesselman and Brian Liebel
		15:45	^c Diagnosing Alzheimer's Disease using Features of Pupil Light Reflex to chromatic stimuli - Preliminary results (15 mins)	Wioletta Nowak, Minoru Nakayama, Martyna Pieniżek, Anna Źarowska, Andrzej Hachoł and Marta Misiuk-Hojłó <i>Presented by Minoru Nakayama</i>

	Session 8	Time	Title of presentation	Authors
15 Sept (Tuesday) 16:30 to 18:00	JSPS symposium - Free papers session Chairs: Hannah Smithson / Daniel Osorio	16:30	^c Contributions of rod and cone pathways to the photic blink reflex and their interplay with pupillary light reflexes (15 mins)	Pawel Matusz, Sylvain Crippa, Michael Notter, Jacques Anken, Aki Kawasaki and Micah Murray
		16:45	^c Time series analysis of pupillometric data (15 mins)	Alexandre Z�n�n
		17:00	#Real-time simulations of senile miosis with optical device and image processing - JSPS Symposium Invited Speaker (15 mins)	Katsunori Okajima
		17:15	^c Effect of proximity clues in pupil measurements (15 mins)	Carles Otero, Mikel Aldaba, Juan Carlos Ondategui-Parra and Jaume Pujol
		17:30	^c Pupils of the pupils: chromatic pupillometry in healthy children (15 mins)	Sylvain Crippa, Fatima Pedrosa Domell�f and Aki Kawasaki
		17:45	^c Effects of stimulating melanopsin-containing retinal ganglion cells in migraine patients using multifocal objective pupillometry (15 mins)	Eman Ali, Christian Lueck, Corinne Carle, Maria Kolic and Ted Maddess

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Oral Presentations: Wednesday 16th September



	Session 9	Time	Title of presentation	Authors
16 Sept (Wednesday) 9:00 to 10:45	Optics, pupil size and vision Chairs: Pablo Artal / Toshifumi Mihashi	9:00	*Pupil and optics: a new vision (30 mins)	Pablo Artal
		9:30	#Why do animal eyes have pupils of different shapes? (30 mins)	Martin Banks, William Sprague, Jurgen Schmolz, Jared Parnell and Gordon Love
		10:00	°Stability of the iris and the crystalline lens after saccadic eye movements (15 mins)	Juan Tabernero and Pablo Artal
		10:15	°Natural pupil size, higher order aberrations and optimum visual performance (15 mins)	John Barbur and Eugénie Dalimier
		10:30	°Multifocal lenses and elongated pupils (15 mins)	Gordon Love, Jared Parnell, William Sprague and Martin Banks

	Session 10	Time	Title of presentation	Authors
16 Sept (Wednesday) 11:30 to 13:00	JSPS symposium - Non-human pupils - Comparative studies Chairs: Ron Douglas / Martin Banks	11:30	*Spectral discrimination in “color blind” animals via chromatic aberration (30 mins)	Alexander Stubbs and Christopher Stubbs
		12:00	#Pupil constriction in teleost fish is related to camouflage not vision (30 mins)	Ronald Douglas
		12:30	#Pupillary responses to electrical stimulations of the sclera of peripheral cornea in cats, porcines, and rabbits - JSPS Symposium Invited Speaker (15 mins)	Toshifumi Mihashi, Yoko Hirohara, Tomomitsu Miyoshi, Hiroyuki Kanda, Takashi Fujikado, Thomas Drew and James Wolffsohn
		12:45	°Melanopsin mRNA in the iris of the turtle (15 mins)	James Dearworth, Sze Cheng and Christopher Anderson

* Keynote talk

Invited talk

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Poster Presentations

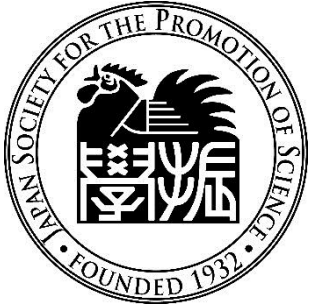
Posters are required to be mounted on the provided poster boards, anytime between arrival on the evening of Sunday 13th of September, and 9:00 on Monday 14th of September.

Presenters are asked to be present at their posters during the morning coffee break and poster sessions, 10:45 (or after the end of the preceding session) to 11:30 on Monday, Tuesday and Wednesday of the conference.

Please take down your poster between Wednesday afternoon and Thursday morning, before departing.

	Times	Poster number	Title of presentation	Authors
Poster sessions	10:45 to 11:30 on Monday, Tuesday and Wednesday	1	The Pupil Light Reflex and its possible connection to Hearing Impairment	Yang Wang, Adriana Zekveld, Graham Naylor, Thomas Lunner, Barbara Ohlenforst, Thomas Koelewijn and Sophia Kramer
		2	Mechanism of pain-evoked pupil-dilation: a species difference	Elemer Szabadi
		3	Effect of pupil dilation on objective and subjective refraction	Yo Iwata and Hitoshi Ishikawa
		4	Pupillary size and light reflex in premature infants	Tetsuya Ikeda, Hitoshi Ishikawa, Ken Asakawa, Toshiaki Goseki and Kimiya Shimizu
		5	The distribution of anisocoria in a group of unselected patients attending a primary care optometry practice	Simon Barnard, Ron Maor, Alex Levit, Yuval Yashiv and Ellis Johnson
		6	Distribution of pupil eccentricity in a group of unselected patients attending a primary care optometry practice	Simon Barnard, Ron Maor, Yuval Yashiv, Alex Levit and Ellis Johnson
		7	Colour pupillometry in primary open angle glaucoma	Dan Milea, Rukmini Venkata, Mani Baskaran, Shamira Perera, Tin Aung and Joshua Gooley

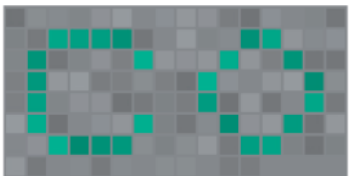
Acknowledgments



We are grateful to the **Japan Society for the Promotion of Science** for supporting the special symposium on the role of ipRGCs and melanopsin in the control of the pupil response, light flux sensing and blindsight.



We are also grateful to our sponsors, **Cambridge Research Systems**, **Allergan** and to **City Occupational Ltd.**, for their generous support of the 31st Pupil Colloquium meeting.



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