

Program Schedule

All talks will be held in the Class of '62 Auditorium

All Breakfasts, Breaks, and Lunches will be held in the Medical Center Atrium

Friday, October 24, 2008

8:00 am - 9:00 am Breakfast, Registration, and Put up Posters

9:00 am - 9:15 am Welcome, **David Williams**, University of Rochester

Retinopathy and Visual Dysfunction

Moderator: **Peter Gouras**, Columbia University

9:15 am - 9:35 am **Fred Fitzke**, University College London

Retinal imaging and functional studies in the living human eye to reveal fine structural changes that accompany loss of visual sensitivity [T1]

9:35 am - 9:55 am **Yi-Zhong Wang**, Retina Foundation of the Southwest

Early detection/assessment/monitoring of vision loss in AMD and Stargardt disease [T2]

9:55 am - 10:15 am **David G. Birch**, Retina Foundation of the Southwest

The role of electrophysiology in detecting and following retinal dystrophies [T3]

10:15 am - 10:35 am **Peter Coffey**, University College London

Animal models of ARMD and RPE transplant in human patients [T4]

10:35 am - 11:15 am Discussion

11:15 am - 12:45 pm Poster Session (with coffee)

12:45 pm - 1:45 pm Lunch

Contributed Talk Session: Color

Moderator: **Jay Neitz**, Medical College of Wisconsin

1:45 pm - 2:00 pm **Osamu Masuda**, University of Rochester

Arrangement of the trichromatic cone mosaic in peripheral retina of a color-normal and a deutan carrier [T5]

2:00 pm - 2:15 pm **Paul Martin**, National Vision Research Institute of Australia

Contribution of blue (S) cone signals to classical and extraclassical receptive fields in the lateral geniculate nucleus [T6]

2:15 pm - 2:30 pm **Rigmor Baraas**, Buskerud University College

Comparison of local versus lateral S-cone modulation on rod thresholds [T7]

2:30 pm - 2:45 pm **Andy Salzwedel**, Medical College of Wisconsin

Functional magnetic resonance imaging (fMRI) investigation of the circuitry for blue-yellow color vision [T8]

2:45 pm - 3:00 pm **Sang Wook Hong**, Vanderbilt University

Interocular suppression selectively affects achromatic and chromatic pathways [T9]

3:00 pm - 3:15 pm **Michael Engles**, University of Georgia

Macular pigment and contrast sensitivity: testing the acuity hypothesis [T10]

3:15 pm - 3:45 pm Break

3:45 pm - 4:30 pm Poster Session

Makous Festschrift

Moderator: **David Williams**, University of Rochester

4:30 pm - 4:50 pm **Don MacLeod**, University of California-San Diego

Color in the neural maze [T11]

4:50 pm - 5:10 pm **Julie Schnapf**, University of California-San Francisco

Electrical networks in mammalian photoreceptors [T12]

5:10 pm - 5:30 pm **Bill Geisler**, The University of Texas-Austin

Natural systems analysis [T13]

5:30 pm - 5:50 pm **Peter Bex**, Harvard University

Contrast perception in natural scenes [T14]

5:50 pm - 6:30 pm Discussion

7:00 pm Makous Festschrift Banquet, Colgate Divinity School

Saturday, October 25, 2008

8:00 am - 8:30 am Breakfast

Gene Therapy Approaches to Basic and Clinical Vision Sciences

Moderator: **Jay Neitz**, Medical College of Wisconsin

8:30 am - 8:50 am **Matt Mauck**, Medical College of Wisconsin

Using gene therapy to probe the circuit for color vision [T15]

8:50 am - 9:10 am **Andras Komaromy**, University of Pennsylvania

Restoration of cone function in dog models of rod monochromacy [T16]

9:10 am - 9:30 am **Ken Greenberg**, University of California-Berkeley

Electrophysiology of channel rhodopsin in rabbit retina [T17]

9:30 am - 9:50 am **Kate Kolstad**, University of California-Berkeley

Engineered photo-switch driven cortical responses in models of inherited blinding diseases [T18]

9:50 am - 10:30 am Discussion

10:30 am - 11:00 am Break

Contributed Talk Session: Vision

Moderator: **Greg Appelbaum**, Duke University

11:00 am - 11:15 am **Michael Falconbridge** (to be given by **Don MacLeod**), Univ. of California San Diego
Invisible gratings exposed by their effect on subsequent test gratings [T19]

11:15 am - 11:30 am **Peng Zhang**, University of Minnesota
Long-term orientation-specific contrast reduction reveals plasticity of mechanisms of contrast appearance [T20]

11:30 am - 11:45 am **Betina Ip**, University of Oxford
Spatial, but not feature attention, modulates responses to stereoscopic structure-from-motion in human visual cortex [T21]

11:45 am - 12:00 pm **Ying Geng**, University of Rochester
In vivo imaging of rat retinal capillaries and fluorescently labeled retinal ganglion cells, dendrites and axons [T22]

12:00 pm - 12:15 pm **Girish Kumar**, University of Houston
Localized distortions within saccadic mapping contribute to the variance in saccadic landing points [T23]

12:15 pm - 12:30 pm **Ethan Rossi**, University of California, Berkeley
The relationship between the cone photoreceptor mosaic and visual acuity in normal observers and blue cone monochromat carriers [T24]

12:30 pm - 1:45 pm Lunch

1:45 pm - 2:30 pm Poster Session

Color and Motion Processing

Moderator: **Karen Dobkins**, University of California-San Diego

2:30 pm - 2:50 pm **Brian White**, Queen's University
Color signals in the primate superior colliculus [T25]

2:50 pm - 3:10 pm **Jonathan Nassi**, Harvard Medical
Specialized circuits relaying primate parallel visual pathways to area MT [T26]

3:10 pm - 3:30 pm **Shin'ya Nishida**, NTT Communication Science Laboratories
Trajectory integration of color signals for motion deblurring [T27]

3:30 pm - 3:50 pm **Declan McKeefry**, University of Bradford
Color in motion revealed by motion after-effects [T28]

3:50 pm - 4:30 pm Discussion

4:30 pm - 4:45 pm Break

4:45 pm - 5:45 pm Business meeting

5:45 pm - 6:00 pm Young Investigator Award

6:00 pm - 7:00 pm Presentation of the Tillyer Medal, **David Williams**, University of Rochester
Introduction, **Alex Wade**, OSA Vision Meeting Program Committee Chair
Tillyer Lecture, **Brian Wandell**, Stanford University

7:30 pm Tillyer Banquet, George Eastman House

Sunday, October 26, 2008

8:00 am - 8:30 am Breakfast

Long-term Adaptive Effects in Color Vision

Moderator: **Angela Brown**, Ohio State University

8:30 am - 8:50 am **Billy Hammond**, University of Georgia

Compensation for macular pigment: color appearance and sensitivity regulation [T29]

8:50 am - 9:10 am **Jack Werner**, University of California-Davis

What the aging lens can tell us about color appearance [T30]

9:10 am - 9:30 am **Rhea Eskew**, Northeastern University

Potential mechanisms of long-term adaptation in color vision, and a failure to find evidence for them [T31]

9:30 am - 9:50 am **Aline Bompas**, Cardiff University

Eye movements participate in color appearance [T32]

9:50 am - 10:30 am Discussion

10:30 am - 11:00 am Break

Between the Eyes and the Cortex: Active and Passive Filtering in the Geniculate

Moderator: **Peter Lennie**, University of Rochester

11:00 am - 11:20 am **Sabine Kastner**, Princeton University

Neural correlates of visual attention and awareness in the human LGN [T33]

11:20 am - 11:40 am **Geraint Rees**, University College London

Functional MRI of the human LGN and subcortical pathways [T34]

11:40 am - 12:00 pm **Henry Alitto**, University of California-Berkeley

Spatial attention and visual processing in the lateral geniculate nucleus [T35]

12:00 pm - 12:20 pm **Jose-Manuel Alonso**, SUNY College of Optometry

Receptive field dynamics and response gain in visual thalamus [T36]

12:20 pm - 1:00 pm Discussion

1:00 pm - 2:15 pm Lunch

Measuring Population Activity in the Visual Cortex

Moderator: **Greg Appelbaum**, Duke University

2:15 pm - 2:35 pm **Adam Kohn**, Albert Einstein College of Medicine

Neural correlation in V1 and its effect on coding [T37]

2:35 pm - 2:55 pm **David Fitzpatrick**, Duke University

Distortions in perceived direction of motion predicted by population response dynamics in primary visual cortex [T38]

2:55 pm - 3:15 pm **Justin Gardner**, New York University

Inferring population responses in human visual cortex with classification analysis [T39]

3:15 pm - 3:35 pm **Serge Dumoulin**, Stanford University and Utrecht University

Quantitative population receptive field estimates in human visual cortex [T40]

3:35 pm - 4:15 pm Discussion

END OF MEETING