## Fall Vision Meeting, 2005

### in cooperation with the Optical Society of America

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Tucson, Arizona, USA

# Fall Vision Meeting (FVM) Abstracts were published in the Journal of Vision

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#### **Fall Vision Meeting, 2005: Abstracts**

The Fall Vision Meeting Meeting was held October 21-23, 2005, in Tuscon, Arizona in cooperation with the Optical Society of America. The following are the abstracts of that meeting. ARVO holds the copyright to Journal of Vision, Vol. 5, No. 12, but not to the individual abstracts in that issue. ARVO has published these abstracts as a service to the vision science community.

### Boynton Lecture 1 Pokorny & Smith

Retinal Implants				
2	Fine, Horsager, & Greenwald	The perceptual effects of retinal electrical stimulation		
3	Wyatt, Drohan, Yomtov, Ziv, & Kelly	Engineering development of a wireless subretinal prosthesis		
4	Fried, Hsueh, & Werblin	A method for generating precise temporal patterns of retinal spiking using		

prosthetic devices

Sensitivity regulation in the visual system

5 Marc Retinal remodeling

#### Myopia, Accommodation & Presbyopia

IVI	myopia, Accommodation & Presbyopia			
6	Candy	Accommodative control of retinal defocus during human infancy		
7	Schor & Bharadwaj	A pulse-step model of accommodation dynamics in the aging eye		
8	Troilo	The role of accommodation in emmetropization and the development of myopia: Evidence from animal studies		
9	Smith	Operational properties of emmetropization in monkeys		

#### **Contributed Vision Session**

10 Macknik, Martinez-Conde, Schlegel, & Tse	Neural and BOLD responses to visibility and invisibility in the visual		
Macknik, Martinez-Conde, Schlegel, & Tse	system of humans and primates		
11 von dem Hagen & Morland	Extent of abnormal retinal projection in human albinism correlates with		

pigmentation levels

12 Appelbaum, Wade, Pettet, Vildavski, & Dynamics of texture segmentation Norcia 13 Anstis & MacLeod Reversals of motion in dim light The relationship between flicker fusion and subliminally induced neural 14 Holloway, Náñez Sr, Seitz, & Watanabe plasticity 15 Saenz, Boynton, & Koch Cortical sources of spatial & feature-based attentional control Connectivity & Function in the Short-Wavelength Cone Pathway 16 Schein Neuroanatomy of S cone ON/OFF pathways 17 Martin Structure and electrophysiology of S cone pathways 18 Smithson What's special about S-cone vision? 19 Stockman S-cone signals in human postreceptoral pathways **Night Vision** 20 Barbur The challenges of assessing visual performance in the mesopic range 21 van de Pol, Kaupp, Salmon, Lozano, & Subjective and objective measures of quality of vision and their relation to Schallhorn simulated night driving performance after LASIK for high myopia 22 Higgins, White, Cades, Ciaccio, & Liu Effect of age on transient adaptation at low light levels 23 Peli, Bowers, Luo, & Zebehazy Assessing visual aids for night blindness **Contributed Color Vision Session** 24 Shevell Retinal images that stimulate S, M and L cones 25 Eskew & Giulianini Nonlinear cone combination in S cone mechanisms: Results that are independent of color representation and off-axis looking Temporal phase shifts in cone and rod mechanisms as a function of 26 Parry & Dwarampudi eccentricity 27 MacLeod, Anstis, & Shubel Singularity of visual dynamics near isoluminance 28 Barbur, Veit, & Plant Functional specialisation for the processing of colour categories in the cortex -evidence from clinical studies Color selective response suppression under metacontrast masking in the 29 Maeda, Yamamoto, Matsuno, Fukunaga, & human visual cortex Nakagoshi **Evolution of the Visual System** 30 Sivak Optics of the fish eye: Diverse and conserved characteristics 31 Ross, Kirk, & Heesy The evolution of eye shape at the origin of Primates and Anthropoidea 32 Casagrande **Evolution of visual pathways** 33 Krubitzer The evolution of visual cortex in mammals: Genetic and epigenetic contributions to the phenotype **Color in Natural Environments** Optimizing trichromacy for information about surface color in natural 34 Foster, Amano, & Nascimento scenes 35 Golz Chromatic statistics of natural scenes as cues for the perception of surface and illumination color 36 Webster, Mizokami, Werner, & Crognale Hue constancy across changes in spectral purity and a functional theory of the Abney Effect 37 Wachtler, Lee, & Sejnowski Efficient coding of color in natural scenes **Amblyopia** 

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69 Horsager, Greenwald, & Fine	Manipulating perceptual brightness during retinal electrical stimulation using pulse trains		
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