

# The Eye and The Chip 2006 World Congress

THURSDAY, June 15 (7:00 AM - 5:00 PM)

7:00 AM	<b>Continental Breakfast</b>	
A. 7:45-8:00AM	<b>WELCOME &amp; INTRODUCTION</b>	Keith Cooley, Michigan <i>Chair, Research Committee</i> Joseph Rizzo MD, Massachusetts <i>Massachusetts Eye &amp; Ear</i>
<b><u>CRITICAL ISSUES</u></b>	<b><i>Moderator: James Weiland PhD</i></b>	
B. 8:00-8:30AM	<b>Ethan Cohen PhD</b> FDA, Maryland	Safety and Effectiveness Considerations for Clinical Studies of Visual Prosthetic Devices
C. 8:30-9:00AM	<b>Joseph Rizzo MD/John Wyatt PhD</b> Massachusetts Eye & Ear/MIT, Massachusetts	N/A
D. 9:00-9:30AM	<b>Stuart Cogan PhD</b> EIC Laboratories, Massachusetts	Performance and Limitations of Electrode Coatings for Visual Prostheses
E. 9:30-10:00AM	<b>BREAK</b>	
<b><u>HUMAN TESTING</u></b>	<b><i>Moderator: John Wyatt PhD</i></b>	
F. 10:00-10:30AM	<b>Ralf Hornig PhD/Gisbert Richard PhD</b> IIP Technologies/Univ. Med Ctr, Germany	First Clinical Experience with a 50 Electrode Retinal Implant
G. 10:30-11:00AM	<b>John Delbeke PhD</b> Universite de Louvain, Belgium	Prospects for the Optic Nerve Visual Prosthesis
H. 11:00-11:30AM	<b>Alan Chow MD</b> Optobionics Corporation, Illinois	Retinitis Pigmentosa Patient Responses: 3 ½ to 6 Years After Subretinal Artificial Silicon Chip Implantation
I. 11:30AM-12:00PM	<b>Robert Greenberg MD PhD/Brian Mech PhD</b> Second Sight, California	Second Sight Technology
J. 12:00-1:00PM	<b>LUNCH</b>	
K. 1:00-1:30PM	<b><i>Moderator: Sylvia Elfar PhD</i></b> <b>Eberhart Zrenner MD</b> University Eye Hospital, Germany	Subretinal Chronic Multi-Electrode Arrays: Results in Blind Patients
<b><u>ANIMAL IN VIVO</u></b>	<b>Jun Ohta PhD</b> Nara Institute of Science & Technology, Japan	Microelectronic-based Stimulators for STS (Suprachoroidal Transretinal Stimulation)
L. 1:30-2:00PM		
M. 2:00-2:30PM	<b>James Weiland PhD</b> Doheny Retina Institute, California	Retinal Responses to Electrical Stimulation
N. 2:30-3:00PM	<b>BREAK</b>	
O. 3:00-3:30PM	<b><i>Moderator: Eberhart Zrenner MD</i></b> <b>Nicolas Cottaris PhD/Sylvia Elfar PhD</b> Wayne State University, Michigan	Electrical Stimulation of the Retina: A View from the Brain
P. 3:30-4:00PM	<b>Maureen McCall PhD</b> University of Louisville, Kentucky	Passive Subretinal Implants – An Empirical Evaluation of Central Responses
Q. 4:00-4:30PM	<b>John Pezaris PhD</b> Harvard Medical School, Massachusetts	The Thalamic Lateral Geniculate Nucleus as a Stimulation Target for a Visual Prosthesis
R. 4:30-5:00PM	<b>Discussion</b>	

# **The Eye and The Chip 2006 World Congress**

**FRIDAY, June 16 (7:15 AM – 4:30 PM)**

7:15AM

**Continental Breakfast**

## **ANIMAL IN VITRO**

**Moderator: Raymond Iezzi MD**

S. 8:00-8:30AM

**Chris Sekirnjak PhD**

Salk Institute for Biological Studies, San Diego

High-Resolution Epiretinal Stimulation of Mammalian Ganglion Cells

T. 8:30-9:00AM

**Shelley Fried PhD**

UC Berkeley, California

Targeting Specific Ganglion Cells with Prosthetic Stimulation

U. 9:00-9:30AM

**Ralph Jensen PhD/Steve Stasheff MD**

VA Boston Healthcare System/Harvard Medical School, Massachusetts

Relative Effects of Early Retinal Degeneration on ON & OFF Pathways

V. 9:30-10:00AM

**BREAK**

## **ANIMAL IN VITRO**

**Moderator: Daniel Palanker PhD**

W. 10:00-10:30AM

**Raymond Iezzi MD**

Kresge Eye Institute, Michigan

Pharmacological Enhancement of Retinal Prosthesis Function

# **The Eye and The Chip 2006 World Congress**

**SATURDAY, June 17 (7:15 AM - 5:00 PM)**

7:15AM

## **NANOELECTRONICS & BIOENGINEERING**

II. 8:00-8:30AM

JJ. 8:30-9:00AM

KK. 9:00-9:30AM

LL. 9:30-10:00AM

## **VISUAL PROSTHETICS/ PSYCHOPHYSICS**

MM. 10:00-10:30AM

NN. 10:30-11:00AM

OO. 11:00AM-11:30AM

PP. 11:30AM-12:00PM

QQ. 12:00-1:00PM

## **VISUAL PROSTHETICS/ PSYCHOPHYSICS**

RR. 1:00-1:30PM

SS. 1:30-2:00PM

TT. 2:00-3:00PM

UU. 3:00-5:00PM

### **Continental Breakfast**

**Moderator: Gislin Dagnelie PhD**

**Tohru Yagi PhD/Masami Watanabe PhD**  
Tokyo Institute of Technology, Japan

**Gregory Auner PhD**  
Wayne State University, Michigan

**Eduardo Fernandez MD PhD**  
University Miguel Hernandez, Spain

### **BREAK**

**Moderator: Gregory Auner PhD**

**Ronald Schuchard PhD**  
Atlanta VA Rehab, Georgia

**Gislin Dagnelie PhD**  
Johns Hopkins University, Maryland

**Michaela Velikay-Parel MD**  
University Hospital Graz, Austria

**Avinoam Safran MD**  
Geneva University Hospital, Switzerland

### **LUNCH**

**Moderator: Rolf Eckmiller PhD**

**Alan Horsager PhD**  
University of Southern California, California

**Dorothe Poggel PhD**  
Boston University School of Medicine,  
Massachusetts

**FINAL DISCUSSION: Joseph Rizzo MD**

### **POSTER SESSION – Cash Bar & Complimentary Snacks**

All attendees of the poster session will receive *The Eye and The Chip 2006* poster, an *EyesOn Design* car show poster, and will be entered in a drawing for 2 FREE *EyesOn Design* brunch tickets on Sunday, June 18.

Biohybrid Visual Prosthesis  
Update 2006

Retinal Stimulation Array  
with Wireless Power and  
Communication Interface

Development of a Cortical  
Visual Neuro-Prosthesis for  
the Blind: The Relevance of  
Neuroplasticity

Evaluating Functional Vision  
Outcome Measures in People  
with Visual Prosthetics

Simulation Revisited:  
A Roadmap towards  
Understanding Prosthetic Vision

Visual Acuity and Function  
Tests for Patients with a Retinal  
Implant

Simulation Studies Determining  
Minimal Information for Reading  
and Visuomotor Coordination,  
in Central and Eccentrically  
Stabilized Vision

Retinal Prosthetics and Visual  
Perception

The Eye, the Chip – and the  
Brain: Investigating Functional  
Plasticity of Visual Cortex in  
Candidates for the Retinal  
Prosthesis