



2019 The Eye and The Chip

The 11th Biennial World Research Congress

On the relationship between Neurobiology and Nano-Electronics Focusing on Artificial Vision

A project of the Detroit Institute of Ophthalmology, a Division of the Department of Ophthalmology Henry Ford Health System

DEFINITION:

The Eye and The Chip 2019 is a three-day world research congress to accelerate progress toward a nano-electronic device affording some level of useful “artificial vision”. It provides a format for exchange of scientific advances among internationally recognized experts.

CREDIBILITY STATEMENTS:

The Eye and The Chip is a great meeting. It is the best in the field. There is nothing to improve.

Eberhart Zrenner, Prof, Dr Med, University Eye Hospital, Tuebingen, Germany

The Detroit meeting was definitely the best and most useful retinal implant meeting of the year. You have contributed so much to the field.

John L Wyatt Jr PhD, Professor of Electrical Engineering, MIT, Cambridge MA

In the year 2000, the Detroit Institute of Ophthalmology had the inspiration to foster a new collaboration among visual prosthesis researchers, clinicians, and workers in low vision rehabilitation by creating and sponsoring a series of biennial meetings called “The Eye and The Chip”. Successful beyond expectations, these meetings have become the premier gathering place for researchers from all parts of the world and from very different backgrounds. Invited speakers are scientists who are advancing the field, yet the scale and atmosphere allow all researchers, patients, and the media to come and be updated about progress over the past two years. More perhaps than at other scientific meetings, where investigators tend to gather within disciplines, participants at The Eye and The Chip are challenged to be open-minded, learn about and critique each other’s work, and return home with fresh ideas or interdisciplinary approaches.

Visual Prosthetics, Physiology, Bioengineering, Rehabilitation, Spring, 2011

Gislin Dagnelie PhD, Editor, Johns Hopkins University School of Medicine, Baltimore MD

The Detroit event is the premier meeting for those researchers and developers in the field of retinal or cortical prosthetics. The meeting will bring the leaders of the field together in a format that encourages discussion on leading-edge development.

Michigan Small Tech Journal

The scientific program (at The Eye and The Chip) was outstanding with representatives from every major visual prosthetic group in the world in attendance. The 20-minute slots allowed sufficient time for each group to present their recent advances: the adherence to the schedule provided adequate time for questioning from the audience. The mix of clinical, biological and engineering talks allowed everyone to get a comprehensive overview of the diverse challenges associated with this project. Well done.

Shelley Fried, PhD, Boston Retinal Implant Project, Boston MA

The Eye and The Chip has been instrumental in us moving forward and securing funding. It also allowed us to form some marvelous collaborations and exchanges. We have a joint project with Dr Jong-Mo Seo from Korea on surgical approaches and electrode manufacture. Also, Dr Robert Wilke from Professor Zrenner's group in Tübingen has come to Australia for the next few years to work on mathematical models and in vitro experiments to better understand electrical stimulation of the retina. I believe that The Eye and The Chip ... was expertly run. The spirit of scientific collaboration and open debate that underpins the congress is a great contributor to collectively producing a therapeutic device.

Nigel Lovell PhD, University New South Wales, Australia

The congress was most beneficial. It was a great experience to meet so many excellent researchers involved in artificial vision.

Sirkka-Liisa Rudanko, Finnish Federation of the Visually Impaired, Finland

At the time of our first The Eye and The Chip meeting, now many years ago, the field of visual prosthetics was still in its infancy. The research community generally held a very skeptical attitude about the possible use of a bio-electronic implant to restore vision, despite the great success of cochlear implants. Over the last two decades our field has matured dramatically, and now there is widespread optimism about the potential for visual implants to help patients who are blind. The marked improvement in our status as a field is the result of excellent research from a large critical mass of scientists from throughout the world. It is the general opinion of researchers in our field that The Eye and The Chip meeting has provided the most vibrant source of scientific exchange for our field. The reasons for the success of this meeting relate to the fact that the meeting is devoted to a single topic, it is all-inclusive (anyone who is performing credible research in the field is invited to participate) and it provides a very substantial amount of time for open group discussions. These attributes expand the length of the meeting, which I understand increases the cost of the meeting, but the benefits have been remarkable for our field. Simply stated, The Eye and The Chip meeting provides the best venue for scientific and academic exchange in the world for the field of visual prosthetics.

Joseph Rizzo MD, Harvard Medical School, Mass Institute of Technology, Boston MA

You are responsible for a unique event, unique especially in its atmosphere...unique also regarding the planting of numerous seeds for new research avenues and new cooperations. The quest for "Let there be light" begins in our minds and you have made a major contribution to the process. How did you do it? The scientific exchange, the spirit of cooperation and determination to make progress, and the social environment at this unique conference: The Eye and The Chip ... have been excellent. You and your team have basically invented a novel structure and environment to make scientists from different fields feel at ease so that they begin to think and communicate as a team. The desperately waiting blind individuals will be grateful to you.

Rolf Eckmiller PhD, University of Bonn, Bonn, Germany

**Collegiality *facilitates* collaboration,
Collaboration *accelerates* progress!**



DEPARTMENT OF OPHTHALMOLOGY

Detroit Institute of Ophthalmology

