

SUBJECT: Final Progress Report
OSTI ID: 889034
Site Code: CHO - Chicago Operations Office, Argonne, IL

U.S. Department of Energy
Award # DE-FG02-05ER64051

Special Session on Artificial Sight at IFESS 2005
IFESS 2005 Conference, Montreal Canada
July 5-8, 2005

PI/Author: James D. Weiland, Ph.D.
Title: *Conference Proceedings: the 10th Annual Conference of the International Functional Electrical Stimulation Society*

A special session on visual prostheses was held during the Annual Meeting of the International Functional Electrical Stimulation Society (IFESS), in Montreal, Canada, July 5-9, 2005. IFESS is a meeting that typically attracts researchers in implantable nerve stimulators, functional electrical stimulation, and rehabilitation. All of these areas have significant overlap with the retinal prosthesis, but these areas have decades of research behind them. The special session provided a forum for researchers with vast experience in nerve stimulation to interact with leading research in retinal and cortical visual prostheses.

The grant paid for the travel and conference costs of the presenters in the session. The session was chaired by James Weiland (the PI on this grant). The session co-chair was Phil Troyk, Ph.D., from the Illinois Institute of Technology. The Department of Energy was acknowledged at the start of the session as the sponsor.

The following talks were delivered:
Clinical Trial of a Prototype Retinal Prosthesis
James Weiland, Ph.D.
Doheny Eye Institute, Los Angeles, California

The U.S. Department of Energy's Artificial Sight Program
Elias Greenbaum, Ph.D.
Oak Ridge National Laboratory, Oak Ridge, Tennessee

A 16-Channel stimulator ASIC for use in an intracortical visual prosthesis
Phillip R. Troyk, Ph.D.
Illinois Institute of Technology, Chicago, Illinois

Two approaches to the Optic Nerve Visual Prosthesis
Jean Delbeke, M.D.
University Cath de Louvain, Louvain, Belgium

Design and Implementation of High Power Efficiency Modules for a Cortical Visual Stimulator
Mohammad Sawan, Ph.D.
Ecole Polytechnique de Montreal, Montreal, Canada

Remaining funds from the grant were used to support Dr. Weiland's travel to the Association for Research in Vision and Ophthalmology in May 2006, with DOE approval, where several projects, supported by the DOE artificial retina program, were presented.

Reference: <http://ifess.org/ifess05/IFESS%202005.htm>