



Neural Prosthesis Seminar

Distinguished Lecture

“Interim Performance Results from the Second Sight® Argus™ II Retinal Prosthesis Study”

October 15, 2010 • 8:30 AM
Biomedical Research Building • BRB 105
Case Western Reserve University



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Abstract:

Subjects with retinal degeneration have been implanted with a 60+ electrode prosthesis in an FDA-approved clinical trial. The subjects had bare light perception or worse due to Retinitis Pigmentosa. They were evaluated using a number of tests such as grating visual acuity, object and letter recognition and orientation/ mobility. As of March 2010, over 30 subjects have been implanted with excellent safety. Subjects have been implanted an average of 18 months (range 6.7-33) and are tested with the Argus II system turned ON vs. OFF. All subjects now perceive light and can complete tasks significantly better ($p < 0.05$) with the system ON vs. OFF. Five subjects have regained measurable visual acuity (2.9 logMAR) with the system ON. Of 24 implanted subjects, 95% were able to correctly identify test letters with the system ON compared to 8% with the system OFF. With up to 3.2 total years of follow-up on the 32 subjects, this now constitutes the largest study of a visual prosthesis to date. The results confirm previous reports using the Argus I device as to the ability of this system to restore functional vision over the long-term. Higher resolution devices are in development.

For more information, please contact Cathy Naples at (216) 707-6490.