

A DEAF AND LEGALLY BLIND HONOLULU WOMAN WHO IS THE ASIA-PACIFIC REGION'S FIRST BIONIC RETINAL IMPLANT RECIPIENT CAN NOW SEE LIGHT AND OBJECTS

THE 'BIONIC EYE' ALLOWS A 73-YEAR-OLD WOMAN TO BE OUT OF THE DARK AND REGAIN SOME OF HER INDEPENDENCE

The bionic eye is the only retinal prosthesis approved by the U.S. FDA and the first in the world

(Honolulu, Hawaii, December 18, 2015) The Eye Surgery Center of Hawaii is pleased to announce the Asia-Pacific Region's first bionic retinal implant recipient is using her new artificial vision and able to see light and specific objects. This development is significant for a 73-year-old deaf and legally blind Honolulu woman who had been living in total darkness. The surgery was performed on March 24, 2015 and for the first time in nine months the patient publicly demonstrated her milestones utilizing her new vision. Dr. Gregg Kokame is the only Hawaii physician trained to perform the bionic retinal implant surgery and the Eye Surgery Center of Hawaii is the second center in the western United States approved to perform this procedure. The first center is the USC Eye Institute where the implant was developed. The Argus II Retinal Prosthesis System (known as the bionic eye) is the only artificial retina that is U.S. FDA approved. (System Overview below)

"Hawaii's first bionic retinal implant surgery is a success and today we are ecstatic to be instrumental in helping our patient to see light again and be more mobile," said Dr. Gregg Kokame, founder and president of Retina Consultants of Hawaii and the president of the Eye Surgery Center of Hawaii. "The ability to see light and shades of gray for a person who has been living in the dark for years dramatically changes their day-to-day living and optimism. I pursued this futuristic technology to change the lives of my patients and I am extremely pleased with the results and how my team will help people with retinal blindness see light again."

The Argus II has shown dramatic clinical results to help patients with retinitis pigmentosa to be able to utilize artificial vision to see.

"It is a significant change and capability for a blind person, like our patient, to suddenly see light and be able to make out objects," said Sheila Chamian, research director of Retina Consultants of Hawai'i, Inc. "Recently, our patient was able to see the outline of another person wearing dark clothing when the person was by a window during daylight. This is phenomenal in her progress of hitting her milestones."

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How Argus II Provides Sight

In a healthy eye, the photoreceptors (rods and cones) in the retina convert light into tiny electrochemical impulses that are sent through the optic nerve and into the brain, where they are decoded into images. If the photoreceptors no longer function correctly—due to conditions such as retinitis pigmentosa—the first step in this process is disrupted, and the visual system cannot transform light into images.

The Argus II Retinal Prosthesis System ("Argus II") is designed to bypass the damaged photoreceptors altogether. A miniature video camera housed in the patient's glasses captures a scene. The video is sent to a small patient-worn computer (i.e., the video processing unit – VPU) where it is processed and transformed into instructions that are sent back to the glasses via a cable. These instructions are transmitted wirelessly to an antenna in the implant. The signals are then sent to the electrode array, which emits small pulses of electricity. These pulses are intended to bypass the damaged photoreceptors and stimulate the retina's remaining cells, which transmit the visual information along the optic nerve to the brain. This process is intended to create the perception of patterns of light which patients can learn to interpret as visual patterns.

About the Surgery on March 24, 2015

The first artificial retinal bionic eye implant surgery in the Asia Pacific region to help restore vision for the blind was performed today in Honolulu, Hawaii by a team at the Eye Surgery Center of Hawaii led by Dr. Gregg Kokame. This ground breaking surgery was performed on March 24, 2015. Dr. Mark Humayun MD PhD, Professor of Ophthalmology at the USC Eye Institute, and the inventor of the Argus II implant was also present at the Eye Surgery Center of Hawaii for this historic event.

The Eye Surgery Center of Hawaii is the leading ophthalmology specialty surgery center focused exclusively on the surgical treatment of the eye in Hawaii and the Asia Pacific. Eighteen eye surgeons perform ophthalmologic surgeries at the Eye Surgery Center of Hawaii.

More artificial retinal bionic implant transplants are scheduled at the Eye Surgery Center of Hawaii. Patients with blindness from retinitis pigmentosa, who are interested in being evaluated for this procedure should contact Dr. Gregg Kokame's office at 808-487-8928 or email inquiries to research@retinahi.com

Patients from the Asia-Pacific region interested in a bionic retina transplantation should contact Sheila Chamian at 808-380-8060 research@retinahi.com

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About Retina Consultants

Retina Consultants of Hawaii (RCH) was founded by Dr. Gregg Kokame. Partners include Dr. Gregg Kokame, Dr. James Lai, and Dr. Raymond Wee. All three ophthalmologists specialize in medical, surgical, and laser treatment of retinal, vitreous, and macular diseases. RCH is globally recognized for patient care, research, and education, and has helped to pioneer many of the leading treatment and technology in use today. Dr. Gregg Kokame is an Iolani graduate, and earned his bachelor's at Pomona College. He received his MD from UCLA, and completed his ophthalmology residency at the Jules Stein Eye Institute and vitreoretinal surgery fellowship at the Bascom Palmer Eye Institute of the University of Miami, which is ranked the #1 Eye Institute in America for more than a decade. Dr. Kokame is a clinical professor at the University of Hawaii John A. Burns School of Medicine, where he teaches international vitreoretinal fellows, residents, interns and medical students about retinal diseases. All partner physicians at RCH are listed as Best Doctors in Hawaii.

About The Eye Surgery Center of Hawaii (ESCH)

The Eye Surgery Center of Hawaii is the leading state-of-the-art ophthalmology specialty surgery center of excellence focused exclusively on the surgical treatment of eye disease in Hawaii and the Asia Pacific region. Eighteen eye surgeons perform highly specialized ophthalmic surgeries at the Eye Surgery Center of Hawaii. Surgeries performed include treatments forglaucoma, cataract, myopia, retina, cornea, and other eye conditions. All staff and surgical team members are specialists in eye surgery and its subspecialties, allowing the Eye Surgery Center of Hawaii to provide world class expert attention for patient care. The center is able to perform nearly 10,000 surgeries a year.

About Argus II and Second Sight

The Argus II Retinal Prosthesis System ("Argus II") is the world's first approved device intended to restore some functional vision for people suffering from blindness. Argus II is approved for use in the United States (FDA) and European Economic Area (CE Mark) and is available in European countries and the Middle East. Second Sight develops, manufactures and markets implantable visual prosthetics to restore functional vision to blind patients. The company's current product is an advanced neuro stimulation device called the Argus II System, which treats retinitis pigmentosa. The Argus II System is the only retinal prosthesis approved in the United States by the Food and Drug Administration and the first approved retinal prosthesis in the world.

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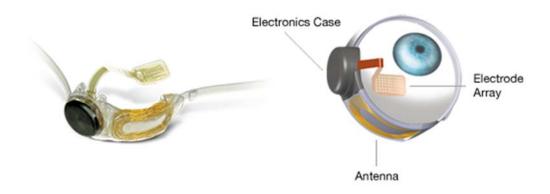
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System Overview The Implant

The implant is an epiretinal prosthesis surgically implanted in and on the eye that includes an antenna, an electronics case, and an electrode array.



The External Equipment

The external equipment includes glasses, a video processing unit (VPU) and a cable.

