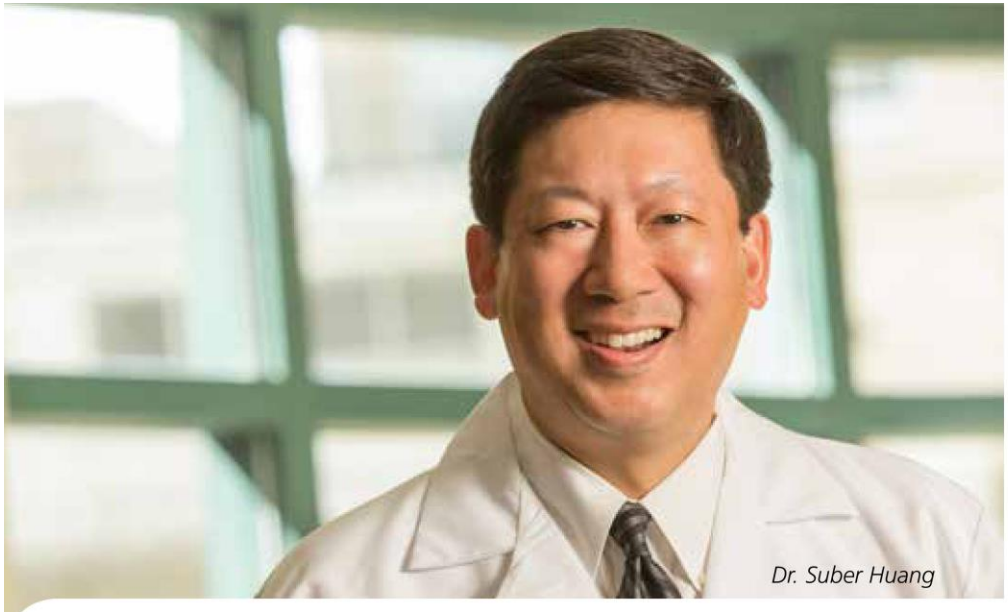

Dr. Suber Huang

BRINGING SECOND SIGHT
to the Profoundly Blind

UH CASE MEDICAL CENTER CHOSEN AS IMPLANT CENTER FOR THE ARGUS II BIONIC EYE

UH Case Medical Center has been chosen as one of only 12 sites in the country to implant the Argus II, a bionic eye implant that restores functional vision to those with profound visual loss brought on by retinitis pigmentosa.

Retinitis pigmentosa is a blinding disease characterized by progressive loss of the photoreceptors, the light-sensing cells of the eyes. Beginning in early adulthood, peripheral vision constricts at a rate of about 5 percent a year, until the loss of sight is incapacitating.

Dr. Suber S. Huang has been involved with the development of the Argus II for nearly five years, serving as the Independent Medical Safety Monitor for clinical studies in Europe and the United States. His past Presidency of the American Society of Retina Specialists and his position on its board, his role as Chair of the Research Regulatory and External Affairs Committee for the American Academy of Ophthalmology, his internationally recognized reputation as a retina surgeon, and his exemplary collaboration with the Cleveland Sight Center were significant in establishing UH Case Medical Center as one of the first implementation centers in the U.S.

The Argus II device is comprised of three components. A small electronic power and vision data processing unit (VPU) is worn by the patient on a belt or strap. The VPU is connected by a cord to a miniature camera mounted just above the nose piece on a pair of glasses. The camera "sees" a field of approximately 15 degrees (normal visual field is 160 – 170 degrees) and sends that information to the VPU which, in turn, sends the data to a receiver mounted on the temple of the glasses. That receiver wirelessly sends a signal and power to a tablet-sized receiver mounted on the eye. The receiver delivers the visual signal via a fine cable to the electrode array seated onto the macula, connecting with the working, undamaged cells of the retina that would normally receive signals from the photoreceptors.

Only patients with retinitis pigmentosa and profound vision loss (bare light or no light perception) qualify for the Argus II at this time. Patients have only partial restoration of vision. Most are able to identify sources of light, sort socks, make out the shape of a doorway or a face, see the edge of a sidewalk and recognize obstacles with their assistive devices. Simply being able to function visually again is an emotional and profoundly moving experience for recipients. While the Argus II is designed to be permanent, it easily can be updated with improved software; exchanged when new, upgraded devices are developed; or even removed if new therapies become available.