Bionic Man

Mark S. Humayun, M.D., Ph.D., is the co-inventor of the Argus Series retinal implant, a bionic eye named one of the Top 10 inventions of 2013 by Time magazine. For this vision-restoring implant for the blind (implanted in more than 100 people worldwide)—and for his extensive work in biotechnology innovation and education—this Los Angeles-based ophthalmologist, engineer, professor, scientist, and inventor was named a 2015 recipient of the National Medal of Technology and Innovation, awarded in person by President Barack Obama.

This summer, Dr. Humayun will be the keynote speaker at Envision Conference 2017, a multidisciplinary conference on low vision, held July 26-29 in Glendale, AZ (envisionconference.org). Here, Dr. Humayun discusses restoring sight for the blind.

On Argus II...
It is taking science fiction and making it science fact. As the first FDA-approved retinal prosthesis, this device brings hope and represents the ability to restore sight to patients who have been blind for decades for whom there was no foreseeable cure.

Most surprising finding...
How well patients with the device can see and function given that they have been blind for several years, having had zero to little light perception.

In living color...
An exciting observation is that electrical stimulation can result in the ability to see some color. [A study revealed that] 14 blind RP subjects fitted with Argus II reported seeing up to nine different colors (white, yellow, blue, gray, red, orange, pink, green, and brown).

—Erinn Morgan