

The Sunday Times today 29/4/2012 reported research into the first Bionic eye akin to the device used by Geordi La Forge in Star Trek Series

The first step to this Star Trek like Occipital implant!

One day for those with severely damage eyes or no eyes at all might be able to see! However this is many many years away.

This is the first real step to a Jordy Like implant!



Interestingly reference to the nick name for the start trek character JORDY exists

as an acronym for **Joint Optical Reflective Display** an optical viewing device developed based on [NASA](#) technology. It is said to be used to help the visually impaired see and read.

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The bionic eye brings ray of hope to blind

Jonathan Leake
Science Editor

SCIENTISTS are to conduct the first human trials of a bionic eye. It will involve pictures from a tiny camera mounted on a blind person's glasses being relayed to a chip implanted in their brain.

The research could help people who have lost their sight through degenerative eye diseases. Success would also show that it is possible to implant a chip in the brain and then use it to input data, an idea which could open up new ways of linking humans to computers.

The trials will be carried out by the Monash Vision Group at Monash University in Australia, with the aim of helping those whose sight has been impaired by conditions including glaucoma, macular degeneration and diabetic retinopathy.

The surgeons will make a small opening in the skull of patients and place a silicon chip on the surface of the visual cortex of the brain. The chip will be equipped with hundreds of tiny wire-like electrodes that will penetrate the brain to relay electrical impulses into its visual area.

Those signals will be

generated by a camera embedded in spectacles worn by the patient and then broadcast into their head by a wi-fi transmitter.

In Britain about 1m people suffer from macular degeneration and glaucoma. A spokesman for the Macular Disease Society said the Monash project was one of several aimed at creating bionic eyes. She said: "Anyone with sight loss will treat this research with great interest, although the projects are all at an early, experimental stage, and a usable and, importantly, affordable system is still a long way off."

Professor David Garway-Heath of Moorfields eye hospital in London said: "Developing technology to enable some vision restoration is a significant challenge in glaucoma. This is because nerve cells have been lost, so the tissue architecture that enables nerve fibres in the eye to connect to the brain has been damaged. The Melbourne approach potentially bypasses these problems by connecting an artificial light sensor directly to the brain. This project has the potential to transform the lives of people with significant vision loss."

Second sight

1 Camera on spectacles transmits images by short-range wi-fi into wearer's head

2 Chip implanted in visual cortex detects wi-fi and generates nerve impulses

It is commonly believed the name is inspired by the Star Trek character, Geordi La Forge.

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