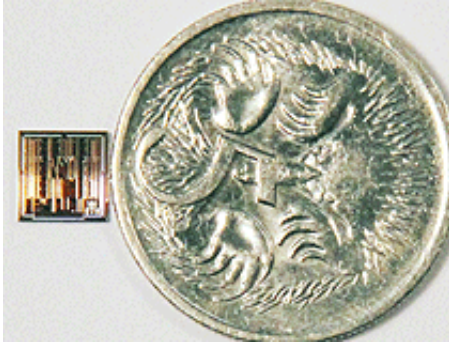


# Major advance for bionic eye

April 1 2011

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Microchip for bionic eye

(PhysOrg.com) -- University of New South Wales researchers have unveiled the microchip which is expected to power Australia's first bionic eye.

Associate Professor Gregg Suaning, of the Graduate School of Biomedical Engineering and a project leader in the national [bionic eye](#) consortium, Bionic Vision Australia (BVA), said the new, 98-channel microchip, now undergoing preliminary lab testing, was a major step towards the goal of a functional bionic eye.

“This is a remarkable new microchip that has brought an Australian retinal implant much closer to reality,” he said.

“At only five square millimetres, the device is tiny but represents a significant advance in nerve stimulation technology. The design team

incorporated never-before attempted features with this design and they absolutely nailed every aspect. The result is mind boggling.”

BVA Director, Professor Anthony Burkitt, said the production of the chip, a year after BVA received funding for the bionic eye project, represented “a major advance in technology”.

“This microchip is at the heart of the retinal implant, which stimulates the retinal cells to elicit vision. It is an important component in the development of our first bionic vision system that may provide real, functional benefits for patients and make our technology competitive internationally,” he said.

The [microchip](#) is performing well in preliminary lab testing. It will be at the core of the Wide-View neurostimulator device being developed by BVA, with the first full implant of the system in a patient planned for 2013.

The bionic eye technology being developed by UNSW and its partners in BVA – the Bionic Ear Institute, Centre for Eye Research Australia, NICTA and University of Melbourne – aims to help people who have experienced vision loss due to retinitis pigmentosa (RP) and age-related macular degeneration (AMD). RP affects 1.5 million people around the world, while AMD is responsible for almost half of all legal blindness in Australia. For more information on RP, AMD and the bionic eye project visit the [BVA website](#).

Provided by University of New South Wales

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