

Mobile phones study is a world-first

By Sara Crowe

The effect of mobile phones on the eyes and hearing of long-term users will be investigated in a world-first study by researchers in the University's Department of Ophthalmology.

A \$300,000, two-year grant from the Federal Government's National Health & Medical Research Council's Strategic Research Fund will fund research led by Associate Professor Paul Mitchell into the health effects of electro-magnetic radiation from mobile phones.

The study will look at the effects of long-term use over more than five years.

"As far as we're aware, it's the first study of its kind in the world," study manager Dr Kathy Rose said. Dr Rose is a lecturer in the School of Applied Vision Science, in the Faculty of Health Sciences, and is a chief investigator on the project.

"Other studies have been done, but none have looked at long-term use of mobile phones on vision and hearing," she said.

"We have no preconceived notion, but there is some indication that the eye could be uniquely vulnerable to the radiation from mobile phones. This would be over time and dependent on usage."

Dr Rose said it was well known that mobile phones caused heating in tissue, although there was thought to be minimal heating of the brain because of protection from the skull and the dissipating effect of blood flow.

But the eyes had no such protection and there were no blood vessels in the lens of the eye, she said.

"A couple of big reports out of England and Canada have both queried the potential of mobile phone radiation to cause cataracts,

which we will investigate," Dr Rose said.

She said people tended to hold phones close in front of them to dial a number and watch for connection – closer than sitting in front of a computer.

The study will draw upon research by Professor Mitchell over recent years for the Blue Mountains Eye Study.

"With great foresight he asked participants whether or not they used mobile phones, which means we have 400 long-term users of mobile phones, and a large control group," Dr Rose said.

"We have to now go back and find out how frequently they use their phones."

The researchers will use a questionnaire developed by Professor Bruce Armstrong

from the NSW Cancer Council, who is also an Adjunct Professor in the Department of Public Health and Community Medicine. He is an associated investigator on the study.

The study involves collaboration with researchers at the ANU and study participants will undergo a rapid analysis of brain function developed by Dr Ted Maddess, in the ANU's Research School of Biological Sciences.

The test looks at the brain's response from various parts of the eye and ear, such as one eye compared to the other eye, and can gain as much as 36 pieces of information simultaneously from one brief stimulus, Dr Rose said.

For further information see the website at <http://www.ccha.usy1.edu.au/avi/>.



Members of the mobile phone study.