



## Media Release

2 February 2010

### Discovery of 'long-sighted gene' a world first

Researchers at the Centre for Eye Research Australia (CERA) hope the discovery of a gene associated with long-sightedness will lead to new treatments to prevent vision loss.

Long-sightedness is one of Australia's leading causes of correctable vision loss, affecting almost 10 per cent of the population.

Long-sighted people can see clearly when looking at objects that are far away, but have difficulty focusing on near objects and struggle with tasks such as reading. This can often lead to blurred vision, headaches and tiredness.

Principal Investigator Associate Professor Paul Baird of the Ocular Genetics Unit at CERA said the study, to be published in *Ophthalmology*, is the first to positively identify a gene for long-sightedness.

"The discovery of the hepatocyte growth factor (HGF) gene provides important insights into the biological mechanisms involved in ocular development," Associate Professor Baird said.

"Currently, the only treatments available for long-sightedness are glasses, contact lenses and laser techniques."

"We hope this important gene discovery will help us develop new drug treatments and I expect it will have a profound impact on improving global eye health."

Associate Professor Baird said that while the underlying causes of long-sightedness are still largely unknown, scientists suspect a complex interaction between genetic and environmental factors is responsible.

It's believed the HGF gene disrupts the process of emmetropisation– the eye's ability to properly grow and adjust for optimal optical imaging during development – leading to long-sightedness.

Researchers analysed the DNA of 551 Australian adults to identify the genetic variations associated with long-sightedness.

Long-sightedness is on the rise and is emerging as a significant health issue in most countries.

CERA is affiliated with the University of Melbourne and the Royal Victorian Eye and Ear Hospital, where it is located.

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For more information or to arrange an interview with Assoc. Prof. Baird contact:

**Lauren Metcalfe**

(MOB) + 61 431 658 933

[laurenem@unimelb.edu.au](mailto:laurenem@unimelb.edu.au)