



Australian  
National  
University



# CLEAR VISION RESEARCH AT THE AUSTRALIAN NATIONAL UNIVERSITY

Retinal diseases will cause 300 million people to lose their sight by 2030.  
Investing in our research will change this.

IN COLLABORATION WITH

**CLEAR VISION**  
RESEARCH

ANU Advancement

## A Global Vision Crisis

Blindness and vision impairment affect 2.2 billion people worldwide, almost half of whom have a preventable or unaddressed condition (WHO, 2020).

Age-related macular degeneration (AMD) is the leading cause of blindness in the developed world. It affects one in seven Australians over 50 and 170 million people worldwide.

Our ageing population means AMD is an escalating crisis. The annual global financial burden is more than \$US340 million and increasing.



Example of sight experienced with AMD

## What Causes AMD?

The retina is the part of the eye that turns light into electrical signals. The brain then converts these signals into images to give us sight.

In AMD, cells in a critical part of the retina (the macular) start to die. This irreversibly impairs our ability to read, write, drive and perform countless daily activities. As there are so many complex factors involved, no cure or effective treatment for AMD exists.

Clear Vision Research will help change this.

## Our Approach

We have found that a specific class of RNA called microRNA are powerful regulators of gene expression and could be used to combat retinal diseases. These molecules exist throughout the central nervous system, including the retina.

Given the complexities of AMD, effective treatments must address multiple targets simultaneously. This is the advantage of microRNA, as they can control many genes along the same biological pathways. This enables the control of entire processes, rather than individual genes.

In an ANU breakthrough we have found that injecting specific microRNA into the eye can lead to decreased inflammation, slowed degeneration and functional improvement of the retina.

Successful use of this research could enable us to preserve the sight of 300 million people who would otherwise develop AMD by 2030.

## Why Us?

ANU is a world-leading university, ranked #1 in Australia and #24 globally. We count more Nobel Laureates among our staff and alumni than all other Australian universities. With an outstanding research-led education, ANU creates opportunities our students and researchers never dreamed possible.

The Clear Vision Research Laboratory (CVR Lab) sits within the prestigious ANU John Curtin School of Medical Research (JCSMR). JCSMR is a translational medical research institute and postgraduate education centre. It has been home to four Nobel Laureates.

The CVR Lab, led by Associate Professor Riccardo Natoli, boasts world-class research infrastructure. Our strategic partnerships create a unique development environment for emerging researchers.

Close ties to the Canberra Hospital and leading industry bodies mean we can translate our research into care efficiently and maximise our value and impact.

### **Patient welfare is our focus.**

Everything we do is to preserve, protect, and improve our patients' sight and the sight of anyone suffering from AMD.

Our ethos, to put people first, is evident in our commitment to developing the next generation of elite vision researchers. Our team culture supports and challenges early-career researchers, so they succeed in this highly competitive field.

The outstanding calibre of our work is evident through our extraordinary track-record of research funding.

However, **good science is impossible without good scientists.** We need future-focused philanthropists to invest in talented researchers and secure the longevity of our life-changing work.



Associate Professor Riccardo Natoli, Clear Vision Research Laboratory Leader



## Philanthropic Opportunities

Join us and together we will develop world-leading scientists and equip them to address the 21st century's most pressing global health challenges.

### Clear Vision PhD Scholarships

Multiyear PhD Scholarships, coupled with expert PhD supervision by Associate Professor Riccardo Natoli, will attract the very best research students to ANU. A \$A200,000 philanthropic gift supports one scholar for a four-year PhD program. \$A1,161,200 endows a PhD scholarship in perpetuity.

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### Clear Vision Postdoctoral Research Fellowships

Support the best and brightest early-career researchers to lead transformative research, in collaboration with the existing world-class CVR team. With philanthropic funding, we can secure talented young researchers and advance vision research. A \$A1,000,000 philanthropic gift supports one postdoctoral research fellow for a four-year research project. \$A5,805,600 endows a single research fellowship in perpetuity.

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### Clear Vision Named Faculty Chairs

Chair holders will lead interdisciplinary projects, in collaboration with world-leading vision researchers. An industry-focused Chair will drive the University's global leadership and deliver innovative treatments. Chair holders will champion partnerships with government, business and health services to deliver transformational therapies for people living with retinal diseases. \$A6,270,000 secures a Chair in perpetuity, named after the donor or in honour of someone they choose. A named Chair gives a donor the chance to transform the future of vision research in wide-ranging and practical ways that will save the sight of millions.

# Giving to ANU

## Ways to Give

There are many ways to make a gift to ANU: one-off donations, making instalments over several years or leaving a bequest in your will.

All gifts contribute directly to their intended purpose and are never used for administrative expenses.

“Retina Australia is proud to have awarded many grants to the outstanding Clear Vision Research team.

I first met Riccardo and the team three years ago. As Riccardo discussed his work, I shared that I have dry-eye macular degeneration and had kept my condition private until then.

What a comfort it is to know the very best vision-researchers are studying AMD. Looking back, it is ironic that I spent so many years fundraising and advocating for retinal research that may now help me. Philanthropy makes life-changing vision research possible and enables the team to help countless people.”

— Jan James, Former President, Retina Australia ACT



Dr Riemke Aggio-Bruce, Clear Vision Postdoctoral Researcher

Join us in our mission to preserve the gift of sight for all humanity.

Thank you.

## CONTACT US

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