Vision for the Future - A 10 Point Plan to enhance Australian Ophthalmic Research

Focus area	Research Question/s	Example Solutions
Vision science	How do we increase understanding of the function and biology of the visual system from eye to brain and apply this to improve patient care?	Support vision and eye basic science research.
Vision for life	How can we reduce the effect of degenerative sight-threatening diseases on quality of life in an ageing population? How can we better support people living with a lifetime burden of eye disease?	New approaches to manage common blinding eye disease by identifying new treatment targets, translational clinical studies, health services research to work out more effective delivery methods. New approaches to reducing the burden of sight-threatening diseases that impact quality of life at differing stages of life.
Increase the effectiveness of treatment	What are the markers of early-stage disease and disease progression that can inform therapy?	Develop therapies for previously untreatable sight-threatening eye diseases. Develop and translate pathophysiologic concepts into these techniques. Develop and optimise therapies to restore vision. Diagnostic techniques using novel imaging functional, genetic and other methods, to individualise treatment decisions.
Applying precision medicine to eye disease	How can we use newer individual person specific features to improve testing and diagnosis of sight-threatening diseases?	Develop biomarkers to guide better treatment decisions. Translate basic vision science research into new treatments Develop advanced diagnostic testing allied with and based upon pathophysiologic concepts. Apply genetic testing to eye disease
Pre-clinical & Clinical Trials	How do we use enhanced clinical trials capacity to improve patient care?	Establish and support coordinated clinical trials networks across Australia. Support for more effective clinical trials that improve patient care. Support for the translation of research concepts and models into clinical trials.

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Prevention	How do we enhance and embed preventive activities to reduce avoidable vision loss, and strengthen the underlying evidence base?	Application of public health strategies for the identification and implementation of evidence-based models of eyecare within the existing funding and structural framework.
Screening & early detection	How can we improve detection strategies for sight-threatening disease to identify and treat those at highest lifetime risk of blindness or vision loss?	Research into new techniques such as biomarkers, genomics, new ocular imaging and functional testing methodology, AI, children's vision, health system integration.
Enhance service delivery	How can we improve access to and uptake of high-quality eye care services?	Enhance multidisciplinary teamwork, patient-centred care, health system integration. Optimise eyecare pathways across providers, integrating systems and data to improve access in varying environments.
Meeting the needs of Aboriginal and Torres Strait Islander Peoples (Closing the Gap)	How do we achieve equity of eye health and vision outcomes for Aboriginal and Torres Strait Islander peoples and embed community leadership and control?	Address barriers to screening in Aboriginal and Torres Strait Islander communities. Build inclusive healthcare and research systems involving Aboriginal and Torres Strait Islander workers, researchers, and communities. Embed locally accessible clinical care and research facilities within Aboriginal and Torres Strait Islander communities to maximize accessibility. Train and mentor Aboriginal and Torres Strait Islander staff within these facilities for leadership positions.
Improving Patient Journey	How do we better understand the impacts of eye and brain disease on vision and quality of life (including social and economic impacts) and manage these?	Better understand patient/health care professional interactions to improve care delivery. Assess disease-specific vision issues, and deliver tailored advice to providers, patients, and carers. Improve vision aids and rehabilitation. Involve patients in research and care delivery decisions.