

# Ophthalmic drugs and therapies

## CERA Research Pipeline



Region	Main contact	Stand no.	Discovery	Target identification & validation	Lead discovery	Preclinical development	Clinical development Phase I-III
Anterior region	Prof. Mark Daniell	16	Hydrogel substrate for assistive endothelial surgery				
			Bioengineered cornea				
	Dr Rod O'Day	7	Chemotherapy agents to treat uveal melanomas				
Posterior region	Dr Luis Alarcon Martinez	1	Regulation of vascularisation and its impact on vision				
	A/Prof Ian Trounce	2	Role of mitochondria in neurodegeneration				
	Dr Zhichao Wu	6	Biomarkers to fast-track glaucoma and AMD treatments				
	Prof. Robyn Guymer	8	Causes of AMD and how to preserve vision				
Gene & Cell therapy	Dr Thomas Edwards & A/Prof Lauren Ayton	10	VENTURE-Progression of inherited retinal diseases and natural history database				
	A/Prof RGuei-Sheung (Rick) Liu	12	Retinal gene therapies				
	A/Prof Ray Wong	13	Gene therapies to treat chronic eye disease				
	A/Prof Ray Wong	15	Cellular reprogramming for regeneration of photoreceptors				

## Ophthalmic medical devices and applications

	Main contact	Stand no.	Concept TRL 1-3	Design & development TRL 4	Research prototype TRL 5	Pilot clinical trials TRL 6	Device prototype TRL 7-8	Clinical trials & regulatory TRL 9	Launch TRL 10		
Devices and/or platforms	A/Prof Penny Allen	9	Bionic Eye								
	Dr Lisa Zhu	4	AI in ophthalmology								
	A/Prof Peter van Wijngaarden	5	Hyperspectral imaging for advanced biomarker detection via satellite imaging and machine learning								