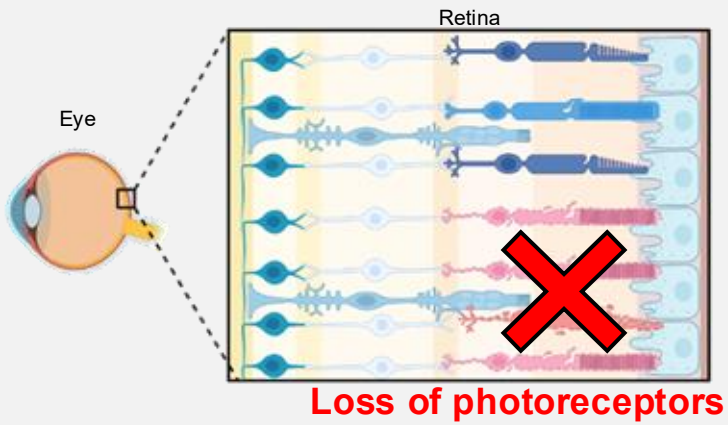
RDH12-LCA at a Glance

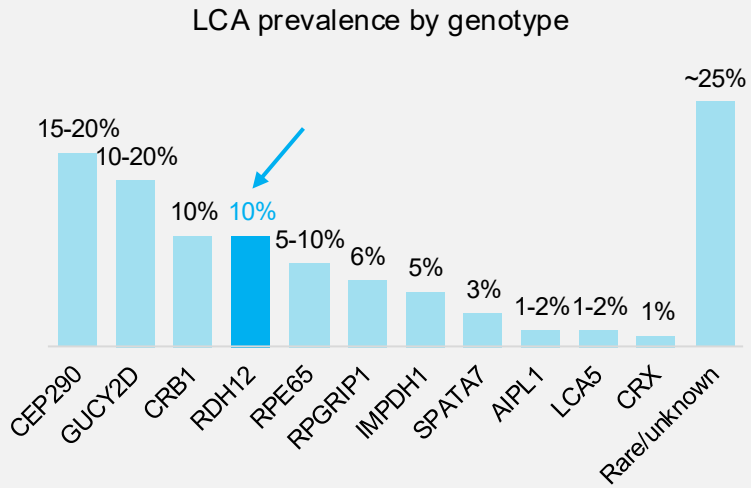
Defective RDH12 causes degenerative blindness



- RDH12 is an enzyme in the inner segment of photoreceptors
- Loss of RDH12 function due to inherited genetic mutations causes toxic compounds to accumulate* in the photoreceptors
- Photoreceptors undergo apoptosis; Retina degenerates

* Leading hypothesis, but pathomechanism has not been definitively proven.
Figure created using BioRender

One of the more common LCA genotypes



- LCA accounts for 5% of inherited retinal diseases, and is the leading cause of inherited childhood blindness
- Up to 10% of LCA cases are RDH12-related, making it one of the most prevalent genotypes
- Patients progressively lose their vision starting from age two; Most patients will be legally blind by 18-25 years old

Prevalence values from Kumaran et al. (2018), *Nonsyndromic Leber Congenital Amaurosis / Early-Onset Severe Retinal Dystrophy Overview*

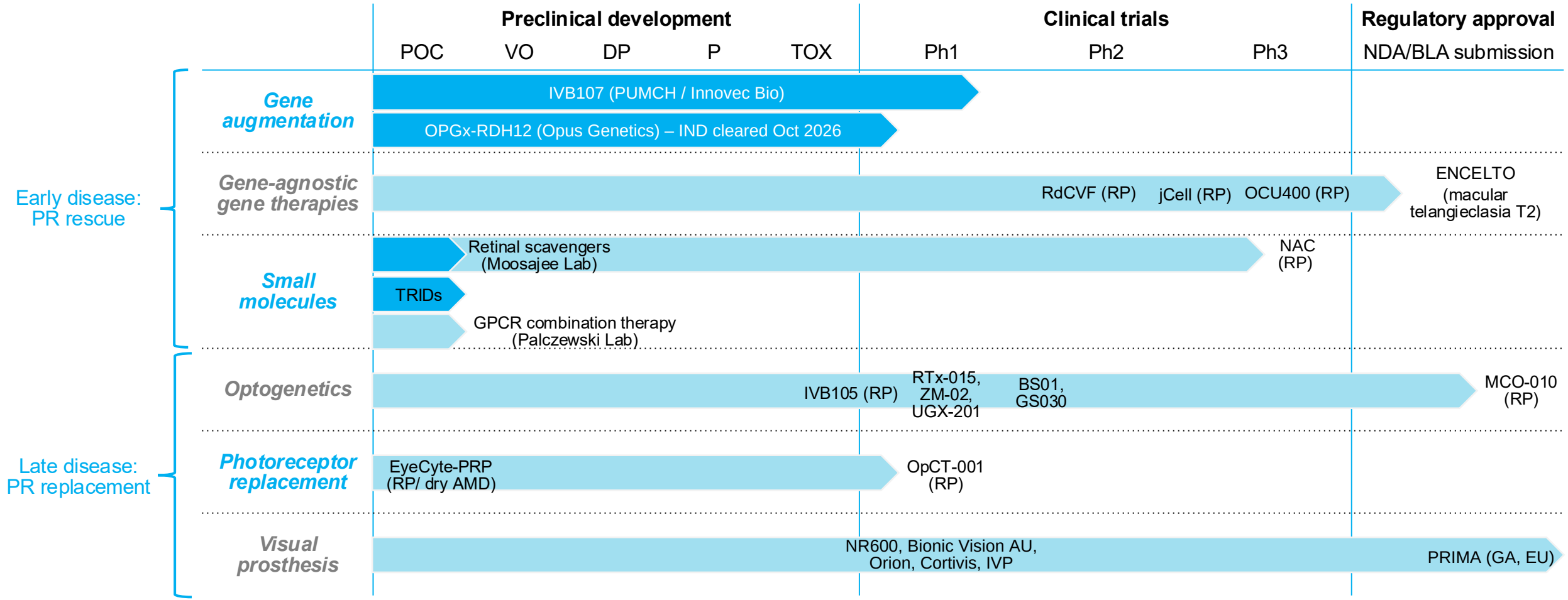
Significant progress made in the past five years, but challenges remain

Not exhaustive

- Two gene therapies in the clinic: encouraging, albeit heterogeneous, early results from China (early Phase 1); US IND cleared (Oct 2026)
- Ongoing earlier-stage work in various research groups, as a multimodal therapeutic toolkit is needed to address RDH12-LCA
- Ongoing work on preclinical/translational infrastructure (e.g. disease models, population studies)

RDH12 Therapeutic Development Landscape

As of October 2026



Key:
AMD: Age-related macular degeneration, BLA: Biologics Licence Application, DP: Dose projection, GPCR: G-protein coupled receptor, NDA: New Drug Application, P: GMP manufacturing / production, POC: Proof-of-concept, PR: Photoreceptor, RP: Retinitis pigmentosa, TOX: Toxicology, TRID: Translational-readthrough inducing drug, VO: Vector optimisation

- RDH12-specific development
- Development for other IRDs with potential to be applied to RDH12

Preclinical models

Mouse	Zebrafish	Stable cells	iPSC	Large animals
Light-sensitised model available	adRP phenotype	Available	Available, in development	Not available

Population studies (NEW)

Penn	北京协和医院	JCHR
Published	Published	Ongoing