CORPORATE PRESENTATION

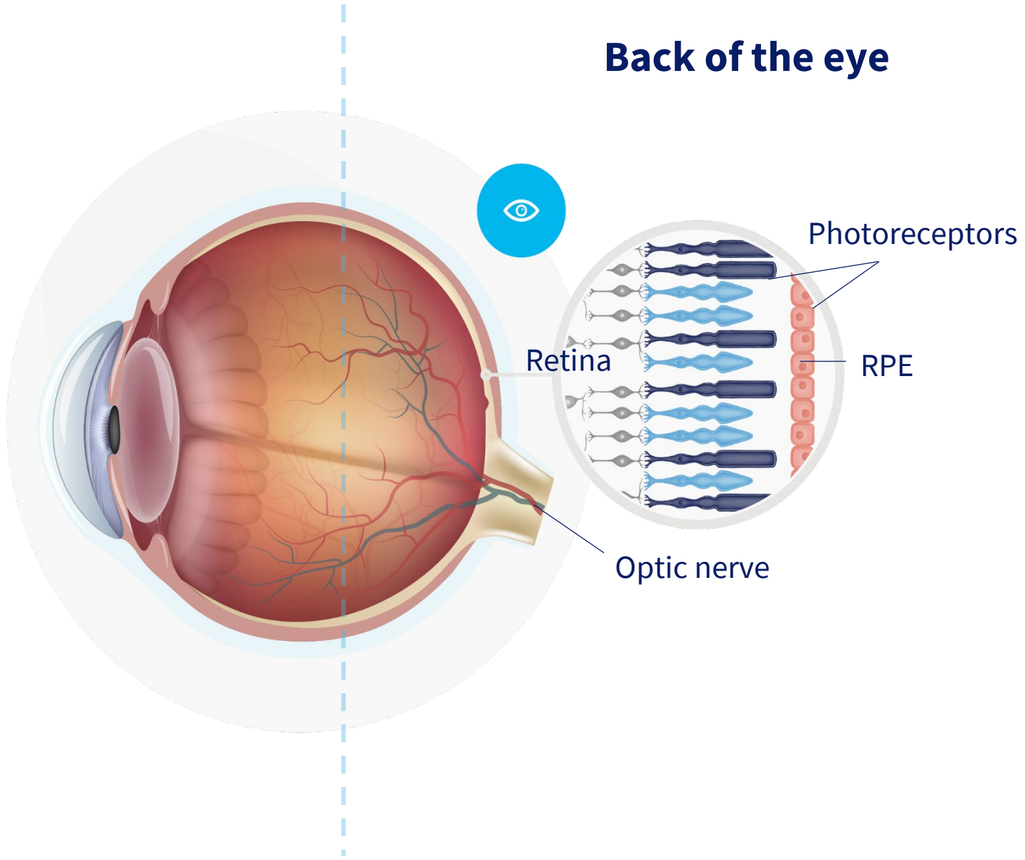
SPARINGVISION

GENOMIC MEDICINES FOR OCULAR DISEASES

FEBRUARY 2024


A FUTURE FREE FROM
BLINDING RETINAL
DISEASE

Retinal diseases affect millions of patients



Age related Macular Degeneration (AMD)	Dry AMD	**~20MM AMD patients** (U.S.)[1] ~90% have dry AMD[1]
	Geographic Atrophy	
	Wet AMD	**~1MM GA patients** (U.S.)[2]
Inherited Retinal Diseases (IRDs)	Retinitis Pigmentosa	**~210,000 RP patients** (U.S./ EU)[3]
	Choroideremia, Stargardt's, Usher, Rod-Cone Dystrophies	
Diabetic Retinopathy (DR)	Diabetic Macular Edema (DME)	**~8MM DR patients** (U.S.)[4] 20 to 30% DR develop DME[2,5]

Sources: 1. https://www.brightfocus.org/sites/default/files/Understanding-Macular-Degeneration-WCAG-2023.pdf ; 2. Cowen Ophthalmology Outlook 2022; 3. Cleveland Clinic/RP https://my.clevelandclinic.org/health/diseases/17429-retinitis-pigmentosa ; 4. https://www.nei.nih.gov/sites/default/files/2019-04/NEI_Eye_Disease_Statistics_Factsheet_2014_V10.pdf 5.Piper Sandler BioInsights - Retinal Disease Deep 2022

Pioneering genomics to save sight

6 products
Gene therapy, CRISPR

€135 million
Raised to date
Cash runway: 2026

2025
Clinical readouts for lead products
SPVN06 & SPVN20

$2.7 billion
Peak sales estimated in 2035 with SPVN06 in retinitis pigmentosa (RP) alone

SPVN06: LEAD GENE THERAPY PROGRAM

- Clinical-stage product with the **potential to preserve vision at whatever time of intervention.**
- **Gene-agnostic AAV-based gene therapy approach**, with retinitis pigmentosa (RP) as first indication. Extension planned to dry AMD/ GA. Subretinal injection.
- PRODYGY **Phase I/II clinical trial ongoing in RP**. Positive initial safety data on first 6 patients presented in Jan 2024; Primary endpoint expected 2H25

SPVN20: CO-LEAD GENE THERAPY PROGRAM

- Gene therapy product with the **potential to restore high acuity and color vision in late-stage RP patients**
- **Gene-agnostic AAV-based gene therapy approach.** Intravitreal (in office) injection.
- NYRVANA Phase I trial in late-stage RP expected to launch in 2025 – CTA enabling studies ongoing.

4 OTHER GENOMIC PROGRAMS IN DEVELOPMENT

- **SPVN30**: Gene-agnostic AAV-based gene therapy approach. Research phase.
- **SPVN50/60/70**: CRISPR-based gene editing programs in ocular. Developed in partnership with Intellia THERAPEUTICS

SparingVision's 3-pillar strategy

Gene Therapy

SPVN06 in RP
SPVN06 in other Rod-Cone Dystrophies (RCDs) & Geographic Atrophy / dAMD

SPVN20 & 30 in Rod-Cone and Cone Dystrophies (RCDs / CDs)

CRISPR

Strategic alliance with exclusive rights to retinal targets for SparingVision

Intellia THERAPEUTICS

Horizon scanning

Identifying the future technologies to allow us to transform the treatment of retinal disease

Applying a suite of technologies

Our pipeline

Matching the right technology to the right retinal disease

Product	Effect/MOA	Delivery	Transgenes	Lead indication	Preclinical			Phase I/II
					Discovery	Research	IND-enabling	
SPVN06	Vision preservation Gene Therapy	AAV	RdCVF/L	RP (stage 2 and 3)	✓	✓	✓	....
				Geographic Atrophy	✓	....		
SPVN20	Vision restoration Gene Therapy	AAV	GIRK	RP (stage 3 and 4)	✓	✓	....	
SPVN30	Vision restoration & preservation Gene Therapy	AAV	RdCVF + RdCVFL + GIRK	RP	✓	....		
SPVN50	Gene editing CRISPR	AAV or LNP	Target 1	Selected Undisclosed	✓	....		
SPVN60	Gene editing CRISPR	AAV or LNP	Target 2	Selected Undisclosed	✓			
SPVN70	Gene editing CRISPR	AAV or LNP	Target 3	To be selected				

A team of ocular genomics and industry experts

Stéphane BOISSEL, MBA
President & CEO

EVP, Corporate Strategy at Sangamo TxCell, Genclis, Innate Pharma, Transgene

Daniel CHUNG , DO, MA
CMO

Global Therapeutic Area Leader- Ophthalmology at Spark Tx, U Penn, CHOP, NIH/NEI

Mehdi GASMI, PhD
CSO & COO

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Hélène GRIMM, JD
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Chief Legal Officer, ENYO Pharma, SBM Group, Bayer

James GOW, MD, MBA, MS
VP, Clinical Development

Exec. Medical Director, Clin Dev at Biogen; VP Clin Dev Ophthalmology at Novartis, Takeda, and Shire

Ryan KLIMCZAK, JD, PhD
VP, Intellectual Property

Head of IP, 4DMT, Vedere

Florence LORGET, Pharm.D., PhD, DABT.
CDSO

Pharm/Tox/PK Head at Sangamo, Genentech, BioMarin, UCSF, Nestle

Florence PALIARGUES
VP, Portfolio Project Management

Director, Program Leader at Cellectis Roche, Servier, Novartis

Stanislas PIOT
CFO

CFO of Balyo, Stentys, Ipsogen, Natixis, Oddo

Raffaella TOSO, PhD
VP, Corporate Development

Search& Evaluation Lead at Spark, CHOP

Marie UGUEN
SVP, Regulatory Affairs & QA

Chief Regulatory Officer, Lysogene; VCLS

Scientific Founders

José-Alain Sahel, MD
Thierry Leveillard, PhD

Deniz DALKARA, PhD
Founder of Gamut Tx

Scientific Advisory Board

José-Alain Sahel, MD
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Managing Director, RD Fund

LA FRENCH TECH 120 2023

€135m

raised to date (Series A + Series B)

4BIO CAPITAL · AdBio partners · bpifrance · RD FUND RetinalDegenerationFund.org · FONDATION VOIR & ENTENDRE · Intellia THERAPEUTICS · Jeito · UPMC Enterprises · YSIOS CAPITAL

GENE AGNOSTIC GENE THERAPIES

SPVN06

- **The only clinical-stage product with the potential to preserve vision at whatever time of intervention – by slowing down cone degeneration**
- Gene-agnostic AAV-based gene therapy approach by subretinal injection. First indication is RP with extension planned to geographic atrophy (GA).
- PRODYGY Phase I/II clinical trial to establish safety and tolerability, and preliminary efficacy of SPVN06 in RP

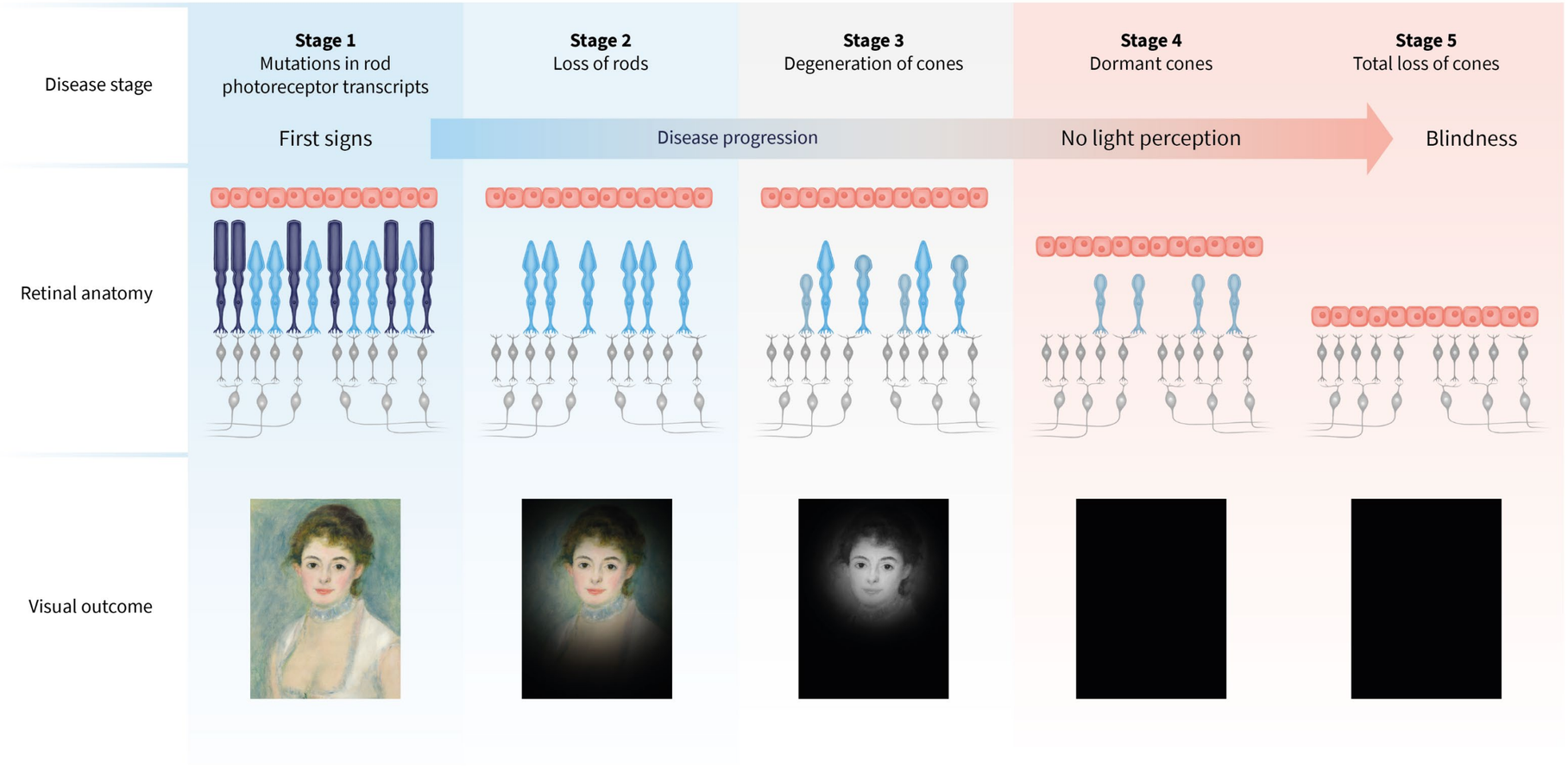
IND: 4Q22
CTA: 1Q23

PRODYGY safety data: 2023

PRODYGY efficacy data: 2025

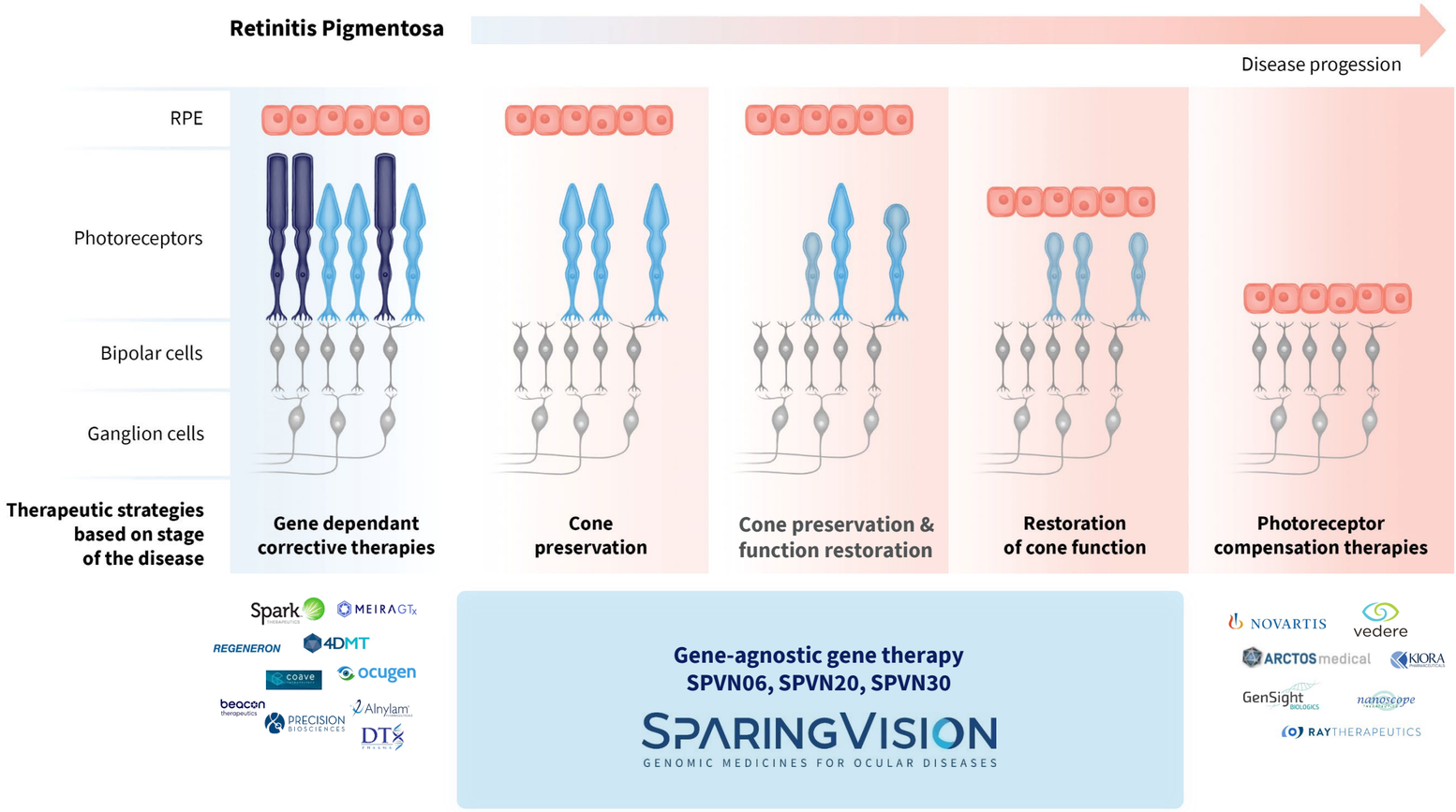
Evolution of Retinitis Pigmentosa

A slowly progressing disease, leading inevitably to blindness



Pioneering gene therapies

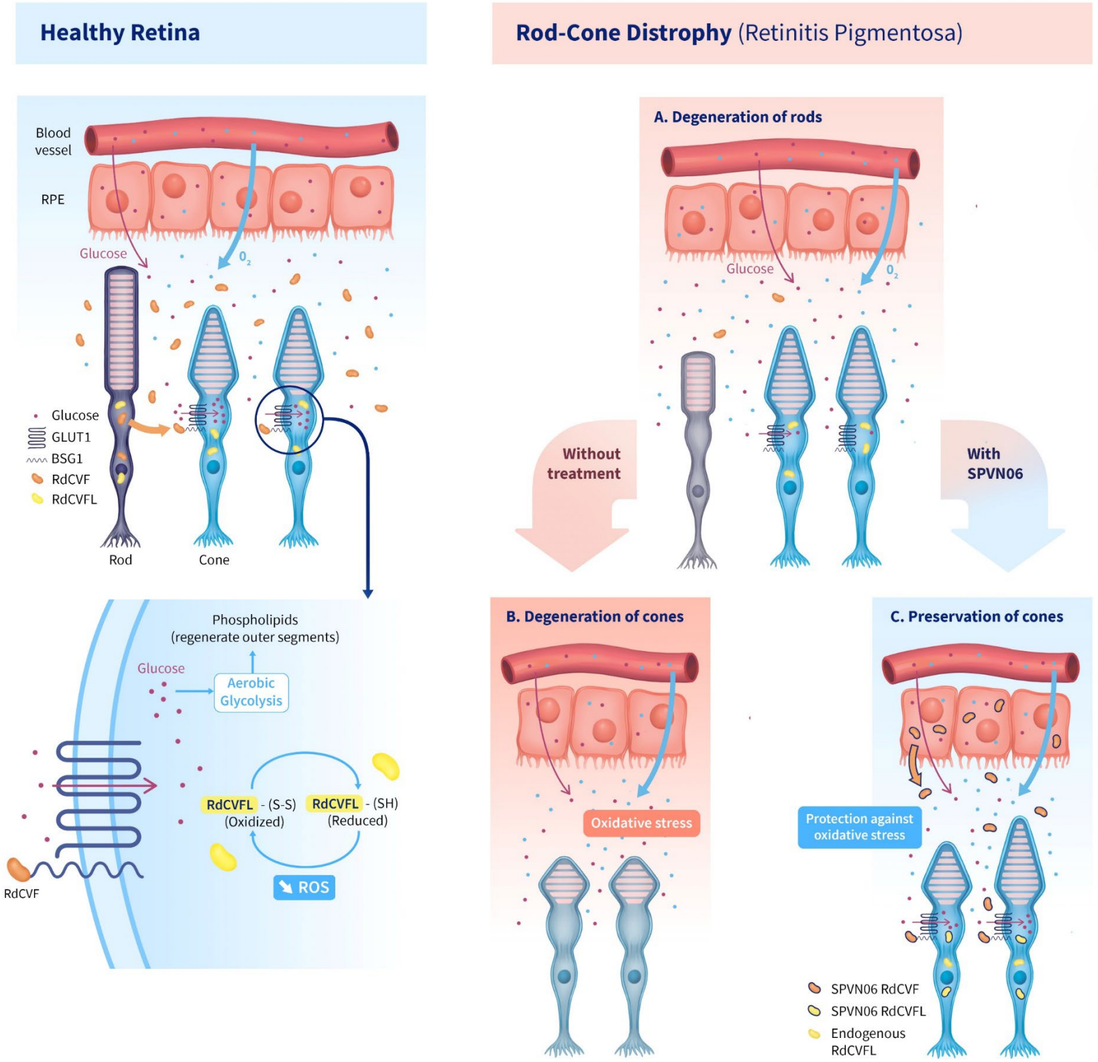
Large window of intervention, corresponding to the most common time of diagnosis



SPVN06: RdCVF/L synergize to protect photoreceptors

RdCVF stimulates glucose metabolism in cones, promoting renewal of their outer segments.

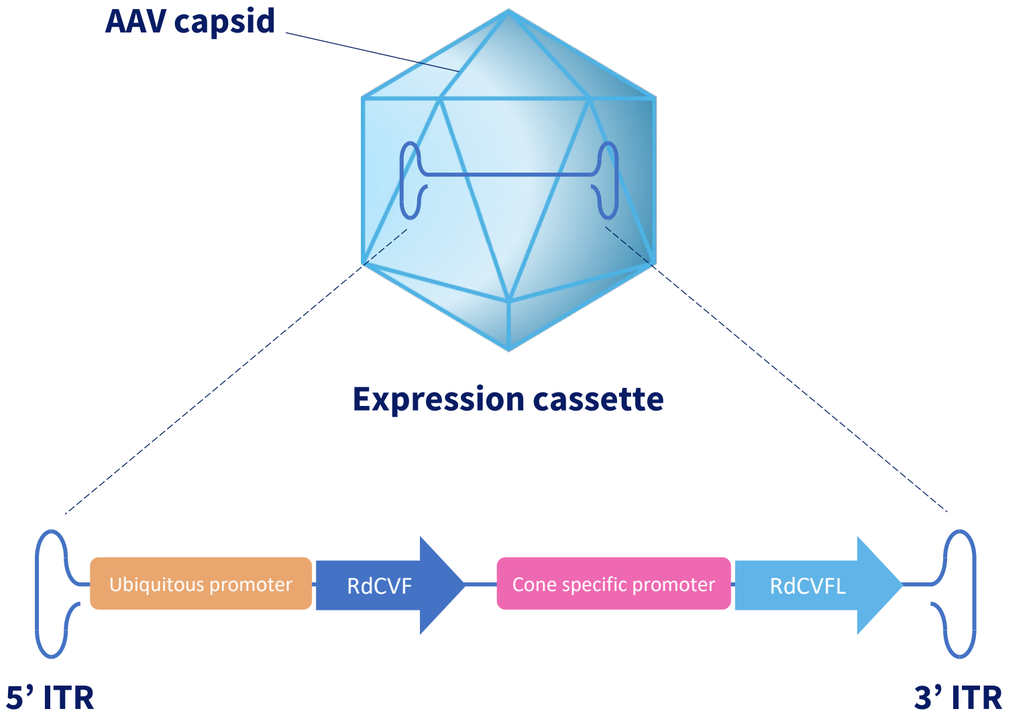
RdCVFL mitigates the effect of oxidative stress that increases in cones following rod death [1,2]



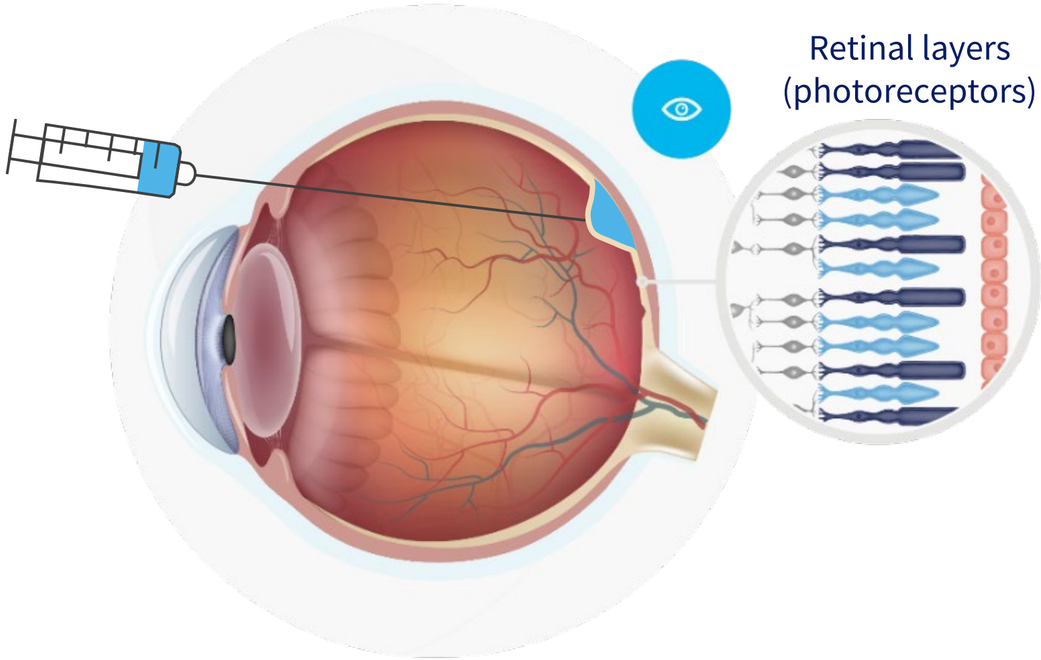
1. Byrne LC, et al. *J Clin Invest*. 2015;125(1):105-116
2. Mei et al. Redox Signal. 2016, 24, 909–923.

SPVN06 construct and route of administration

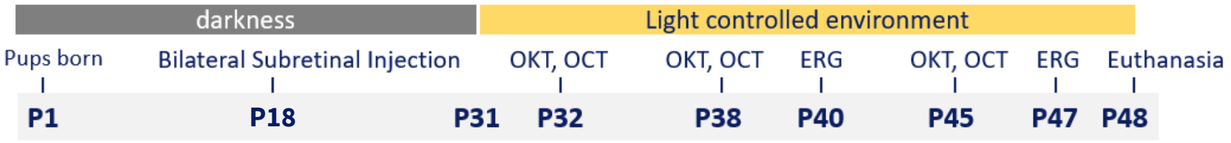
SPVN06 encodes the two synergistic isoforms of *NXNL1* (RdCVF and RdCVFL) into a single vector



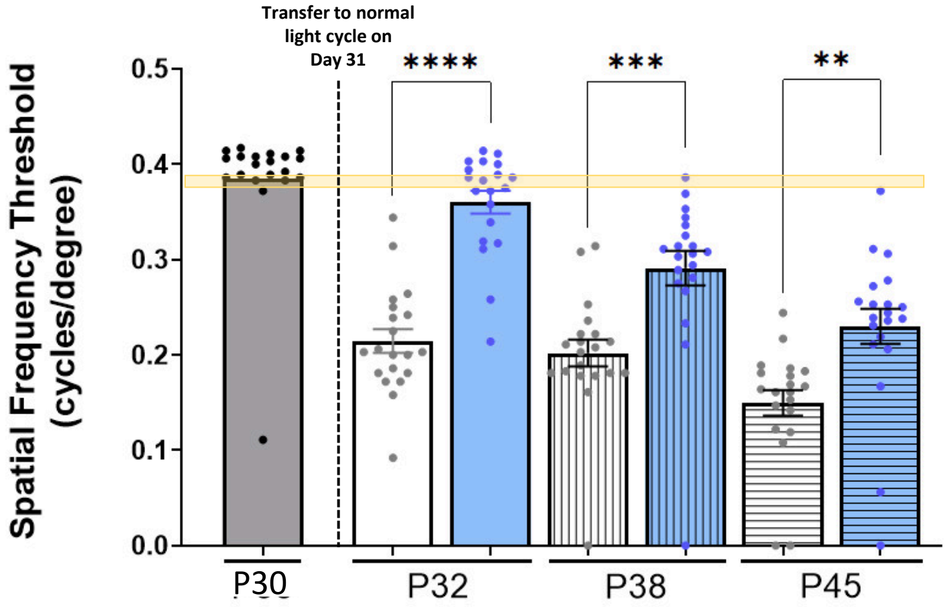
One-time subretinal administration of SPVN06



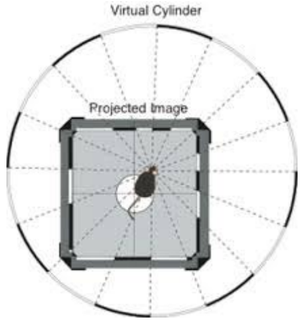
Significant protection of visual acuity and cone density in *rd10* mice



Visual acuity measured by OKT

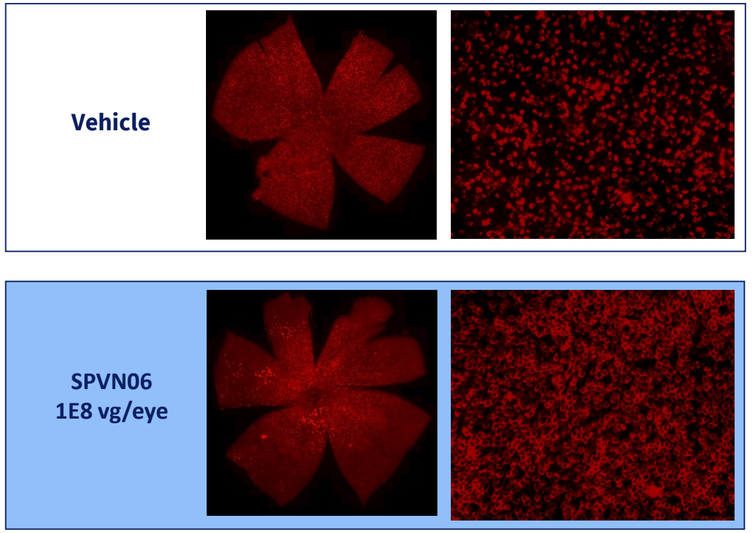


Mean ± SEM ; ** p<0.01 *** p<0.001 and ****p<0.0001;
1-way ANOVA; n=20 eyes



Vehicle
SPVN06 1E8 vg/eye
WT mice
Mean wildtype level

Cone density assessment



Retinal flat mounts, PNA staining x40, Optic Nerve Area

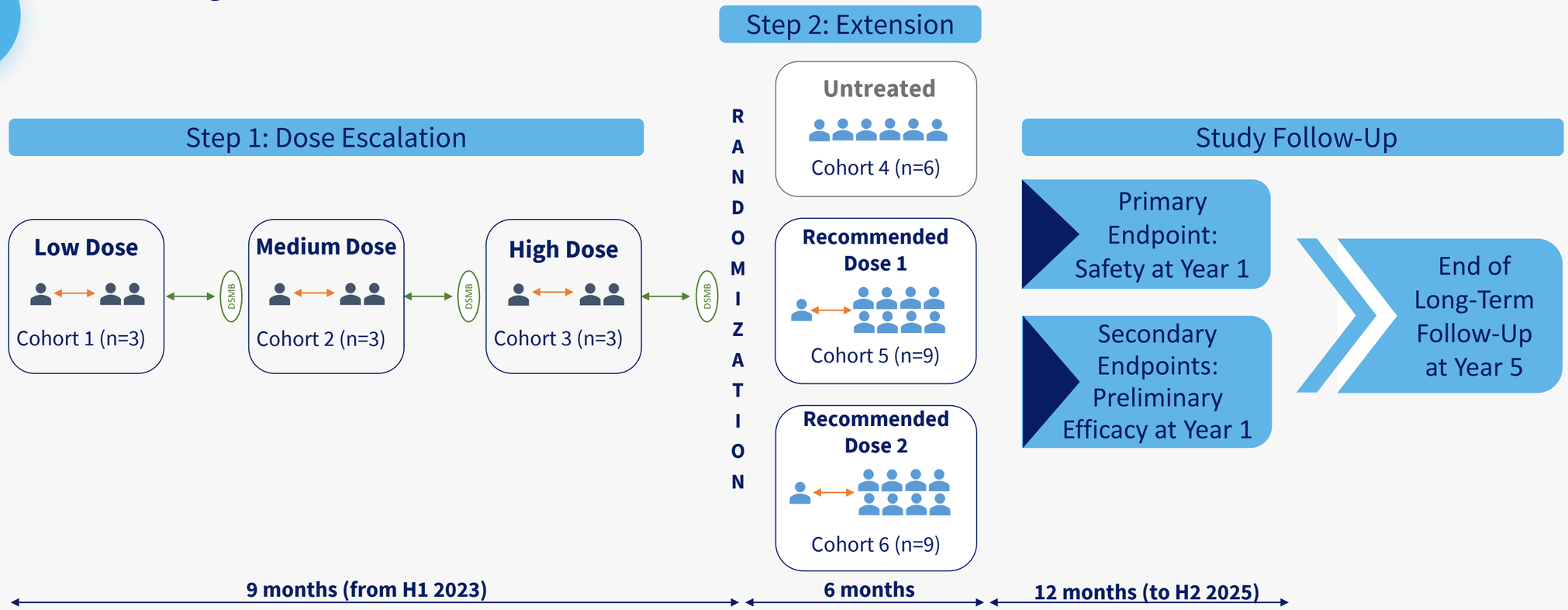
SPVN06 clinical studies: overview

Study	Full Title	Type	Principal Investigator	Status
PHENOROD 1	Natural History Study of Retinitis Pigmentosa in Patient Carrying Pathogenic Mutations in the *RHO*, *PDE6A* or *PDE6B* Gene	Retrospective Natural History	Isabelle Audo Paris, FR[1]	Complete
PHENOROD 2	Natural history study of Retinitis Pigmentosa due to *RHO*, *PDE6A* OR *PDE6B* mutations	Prospective Natural History	Saddek Mohand-Saïd Isabelle Audo Paris, FR[1]	Follow-up ongoing
PRODYGY	A phase I/II study to assess the safety and the tolerability of a single subretinal administration of SPVN06 gene therapy in subjects with Rod-Cone Dystrophy (RCD) due to a mutation in the *RHO*, *PDE6A*, or *PDE6B* gene	Phase I/II	Isabelle Audo, Paris FR[1] Joseph Martel Pittsburgh, US[2]	Recruitment ongoing

[1]15-20 National Hospital, Paris FRA; [2] UPMC, Pittsburgh, USA

PRODYGY phase I/II clinical trial: design

Clinicaltrial.gov: NCT05748873



Severe RCD subject: 20/800 ≤ VA ≤ 20/200 and VF ≤ 20°

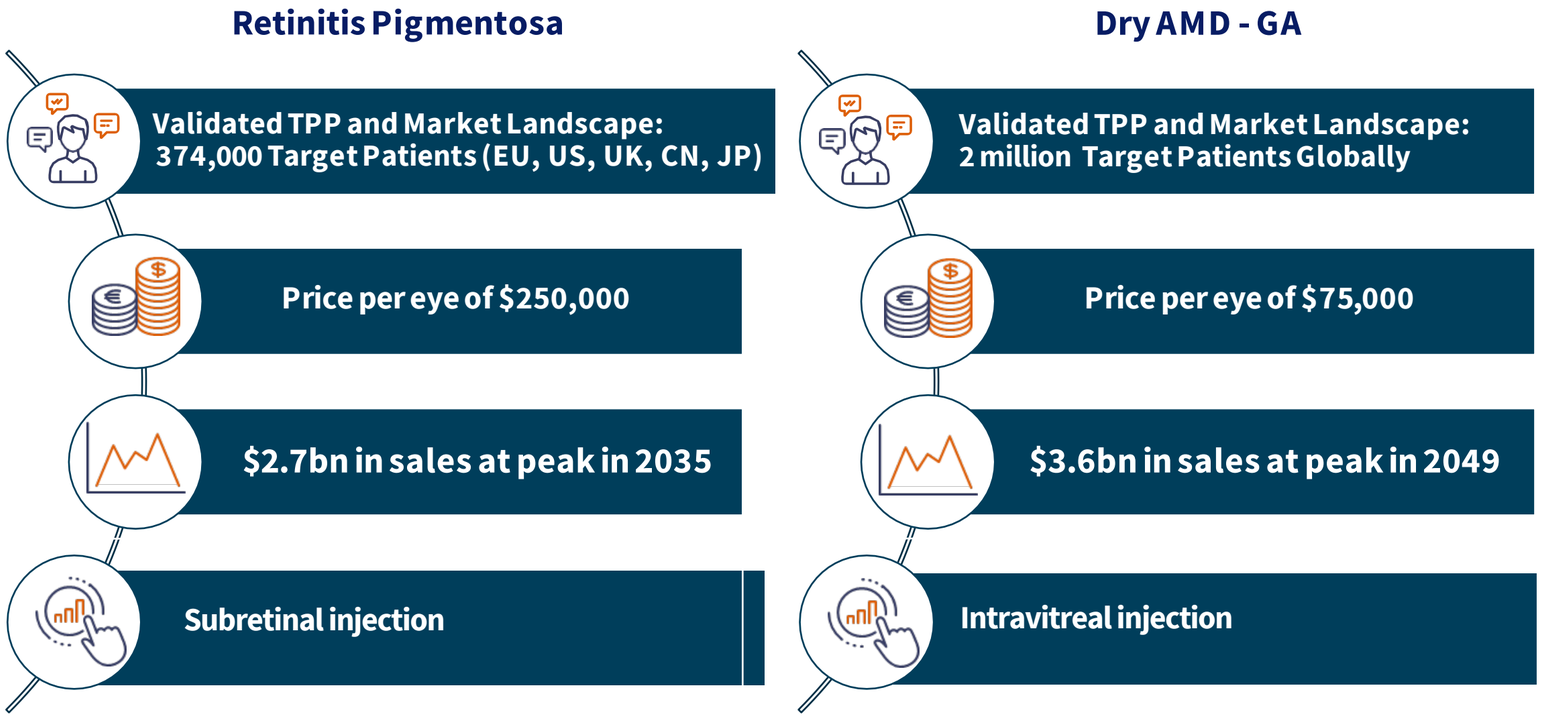
Intermediate RCD subject: 20/200 < VA ≤ 20/40 and VF ≤ 20°

DSMB: 4 weeks between 1st and 2nd subject of the cohort; Review of safety data collected up to 4 weeks after treatment administration in the last subject of the cohort

Disclaimer: Dr. Jose-Alain Sahel and UPMC have financial interests in the study sponsor, SparingVision. These financial interests mean it is possible that the results of this research could lead to personal profit for Dr. Sahel and to institutional profit for UPMC. The conflicts of interest presented by these relationships are being managed by the University and UPMC.

Significant commercial opportunity of SPVN06

Extension planned to dry AMD and Geographic Atrophy



- Significant unmet need in both indications with limited treatment options currently
- Loss of sight has significant societal and economic burden in these two indications
- SPVN06's product profile – is positively perceived by KOLs & payors

SPVN20

- **The only gene therapy product with the potential to restore high acuity/color vision in patients with severe vision loss**
- Gene-agnostic AAV-based gene therapy approach to treat late-stage RP with the aim to regain cone photoreceptor function by reactivating “dormant cones”. IVT injection.
- Possibility to demonstrate efficacy in a short period after administration, by assessing light perception endpoints

IND readiness: Q4 2024

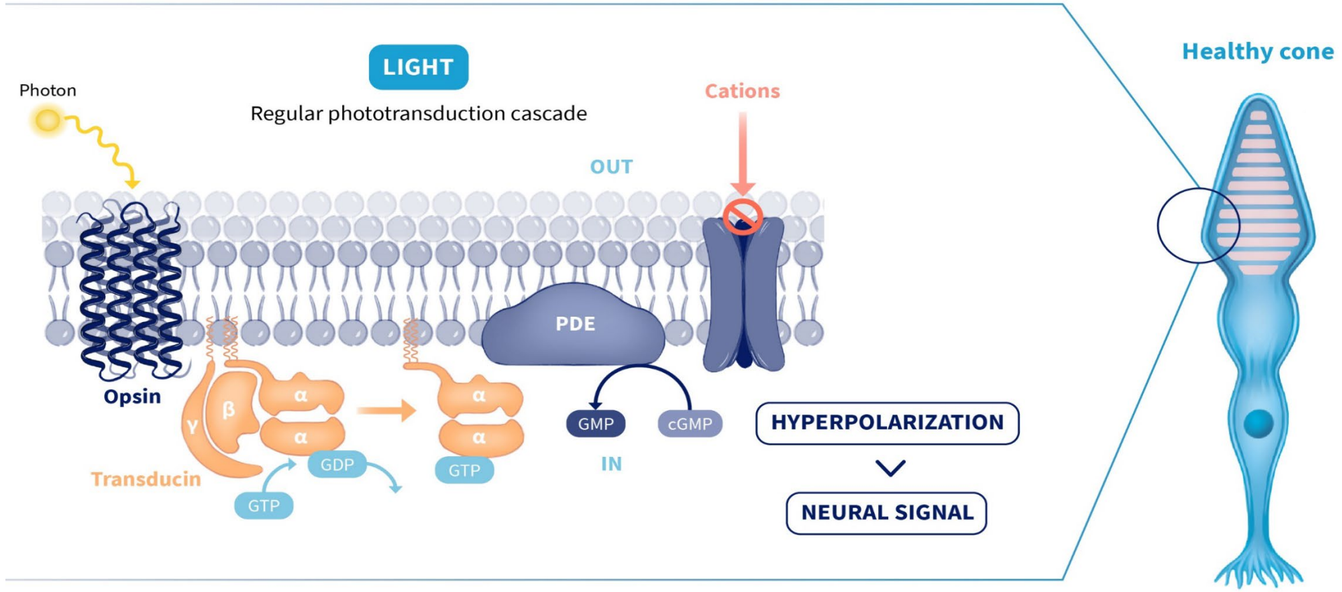
FIH initiation: 2025

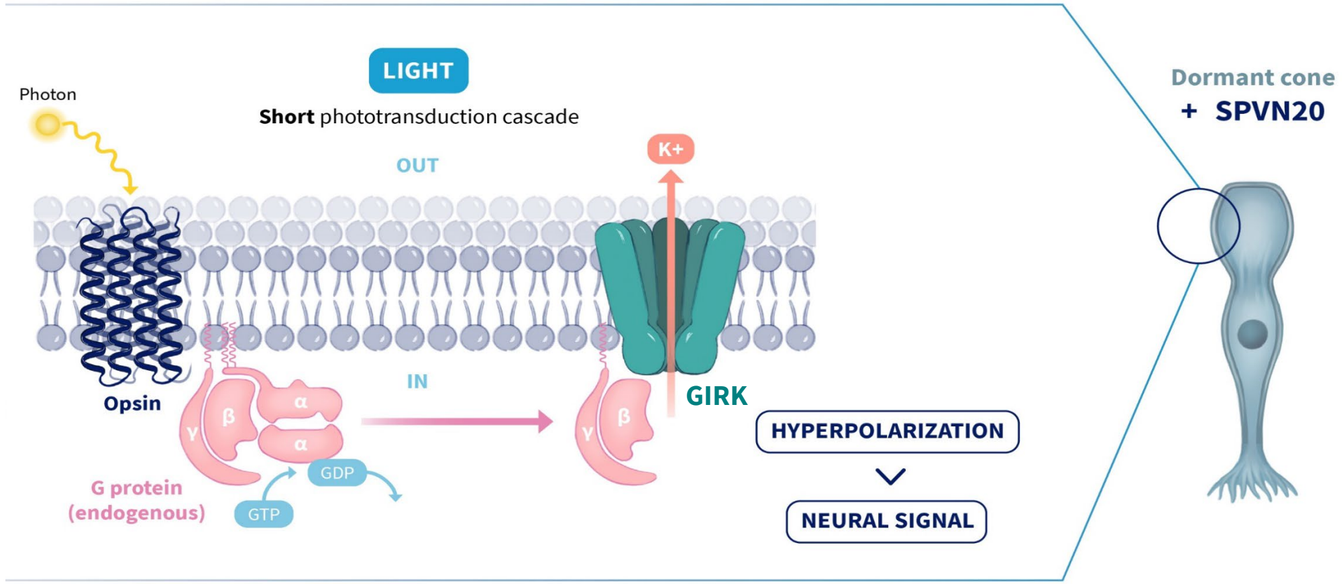
Safety & efficacy data: 2025

SPVN20: Mechanism of action

SPVN20

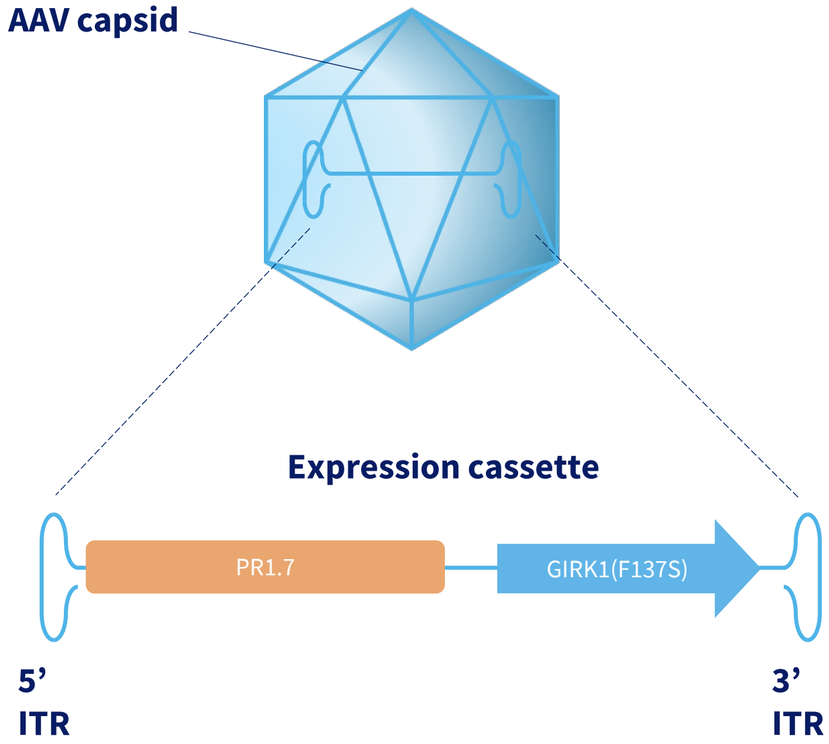
- Intravitreal administration
- Membrane expression of GIRK creates **a short phototransduction** cascade within the dormant cone
- Restoration of foveal cone function and visual acuity
- **Independent of underlying genetic mutation**



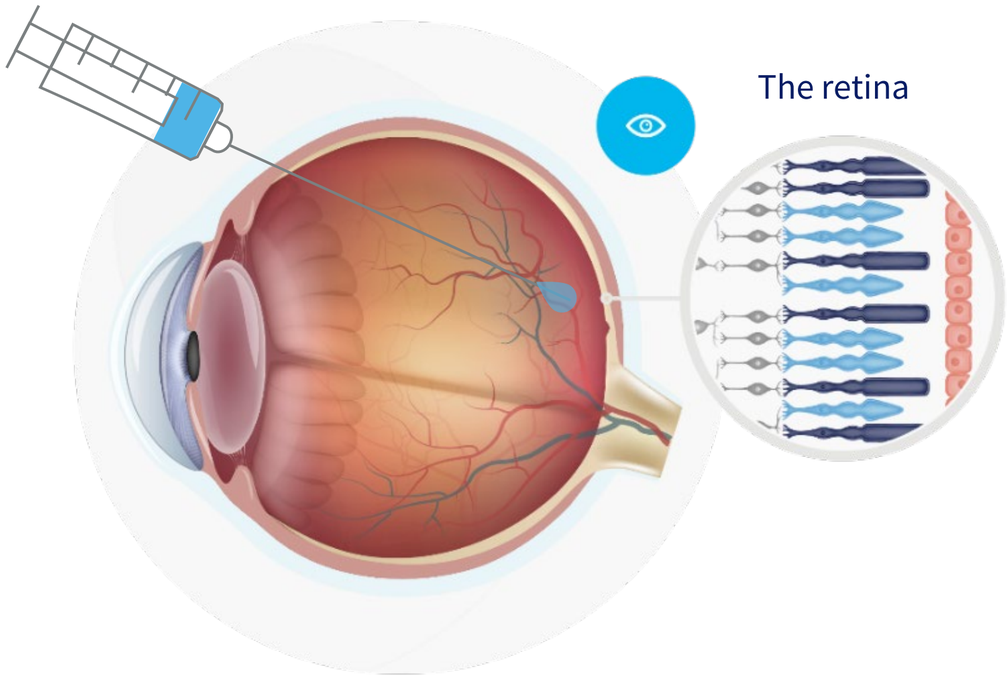


SPVN20 construct and route of administration

SPVN20 product construct using human GIRK potassium channel



One-time intravitreal administration of SPVN20



SPVN20 Competitive positioning

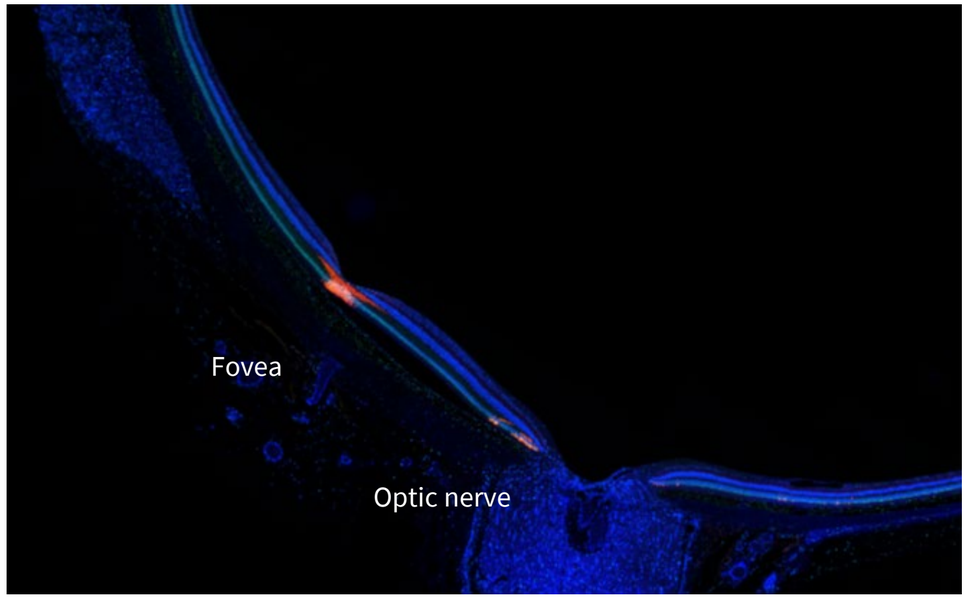
	VISUAL CIRCUITRY	QUALITY OF VISION	EXPRESSED PROTEIN	MODALITY	WINDOW OF INTERVENTION	MARKET POTENTIAL
SPARING VISION	Intrinsic Retinal Circuitry (dormant cones)		GIRK of human origin	IVT / Outpatient	Mid /Late Stage	●●●●○○
RetroSense THERAPEUTICS, Bionic Sight, Allergan, vedere, ARCTOS medical, GenSight BIOLOGICS, nanoscope THERAPEUTICS, RAY THERAPEUTICS	RGC-mediated		Bacterial or algeal origin	IVT/ Outpatient	End Stage	●●○○○○

SPVN20: Superior acuity, color vision with a larger window of intervention
Greater market potential

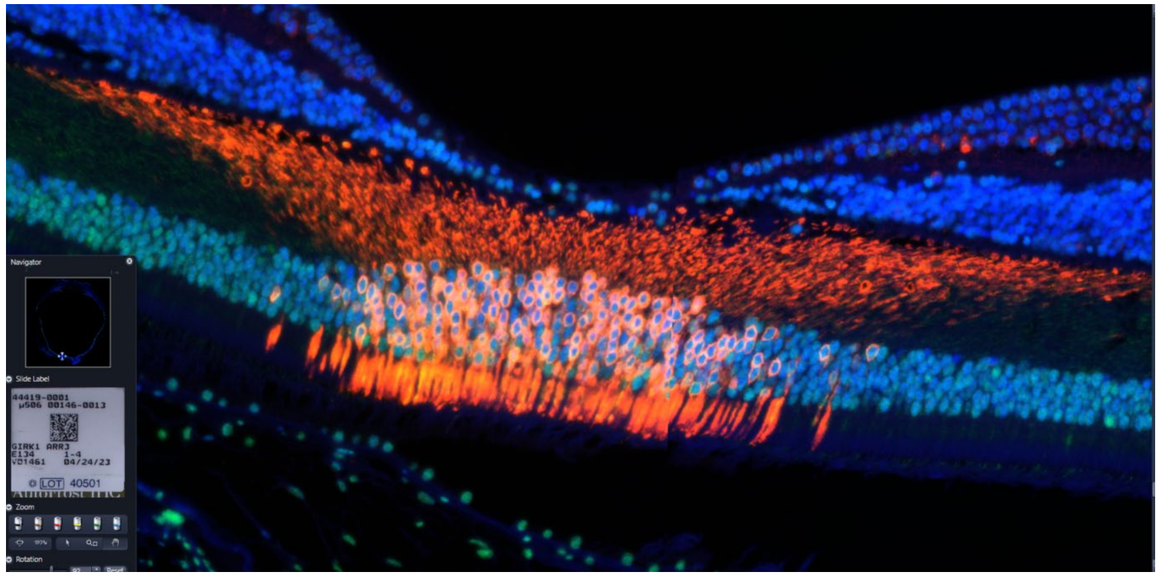
High GIRK1 F317S expression in foveal cones

Intravitreal administration of SPVN20 results in high level of GIRK1 F317S in the cones of the fovea, main target tissue, in green monkeys

Ocular globe – Low magnification



Fovea - High magnification



7E10 vg/eye , Intravitreal injection in African green monkeys, DAPI for nuclei, GIRK1 F317S, ARR3 for cones

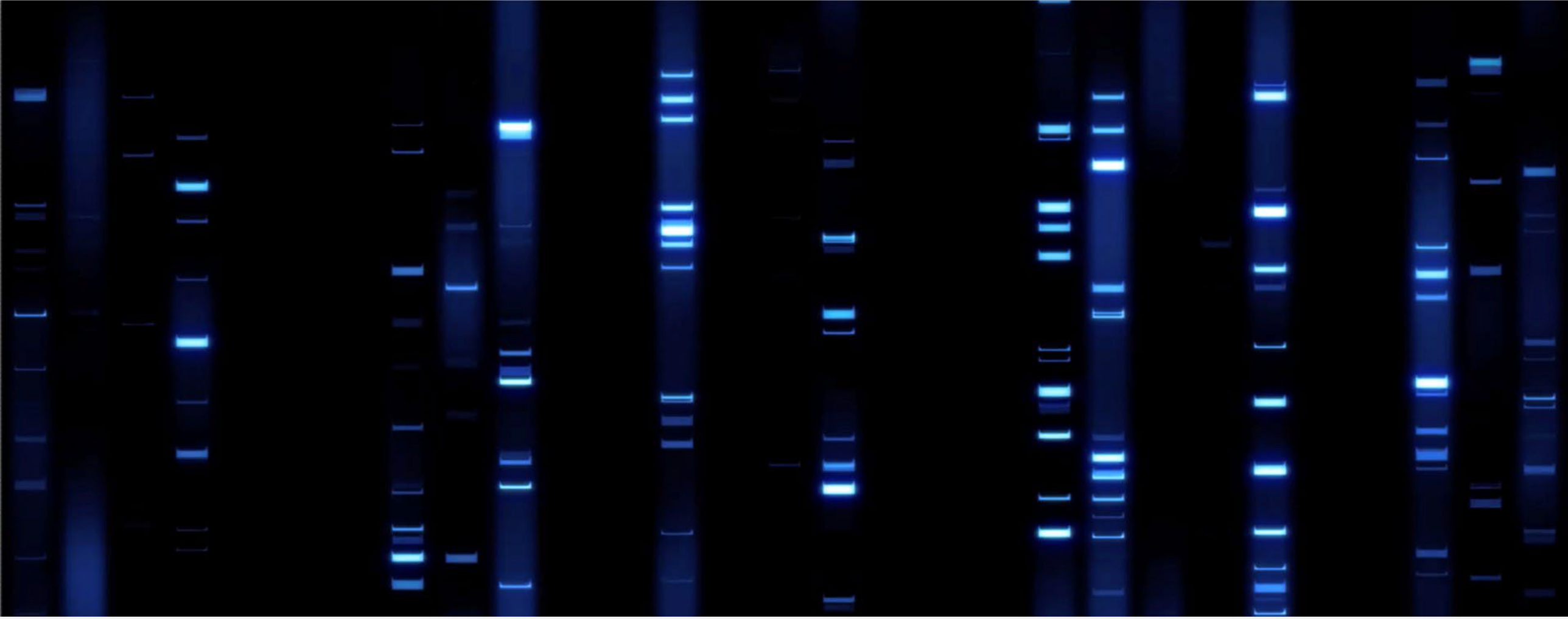
Development of SPVN20 in a nutshell

2021
De-risking, Lead Optimization and CDMO Selection

2022
Lead Selection Process Development

2023
IND-Enabling Studies and Regulatory Interactions

2024 - 2025
cGMP Production, CTA Submission and FIH study initiation



GENE EDITING - CRISPR

Strategic collaboration with Intellia: Deal highlights

- **Development of ocular CRISPR therapies directed to 3 targets:**
  - SparingVision to elect targets for drug development
- **Upfront paid in SparingVision shares, around $200M milestones/product and royalties:**
  - Intellia received 10% equity stake in SparingVision
- **Option right for Intellia on up to 2 of the 3 targets:**
  - Opt-in for commercialization rights in the US only
  - SparingVision eligible to receive option exercise fee, cost reimbursements (past) and royalties
  - Parties to share global development costs 50/50 from opt-in

SparingVision in 2025-2026

An unprecedented portfolio in the space, ready for plug-and-play

1. One or two clinically validated first-in-class gene therapies with a clear path to BLA
2. An exclusive strategic alliance with the most advanced genome editing platform
3. A development engine capable of generating a new IND every other year
4. An established platform of enabling technologies to support existing portfolio
5. An A-team, a robust IP & licenses portfolio and a top tier KOL network