

# **PYC**Therapeutics

Life changing Science

PYC-001 for ADOA

November 2024



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### Who we are?





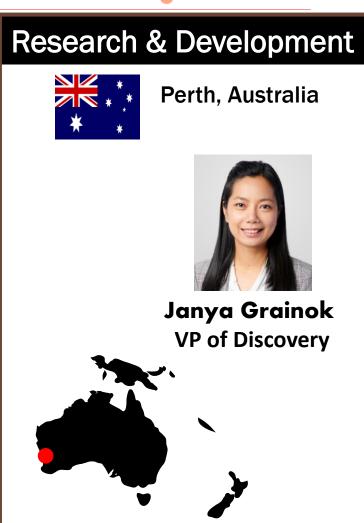
**Operations** 

### **Our Vision**

Create life-changing new medicines for those with severe disease and no treatment options available

### **Our Mission**

Create first-in-class RNA drugs targeting root cause of a genetic disease.



# Pipeline of first-in-class RNA drugs that target root cause of diseases



Retinitis Pigmentosa Type 11

Autosomal Dominant Optic Atrophy

Polycystic Kidney Disease

Phelan-McDermid Syndrome

CLINICAL TRIALS

MARKETED

MARKETED

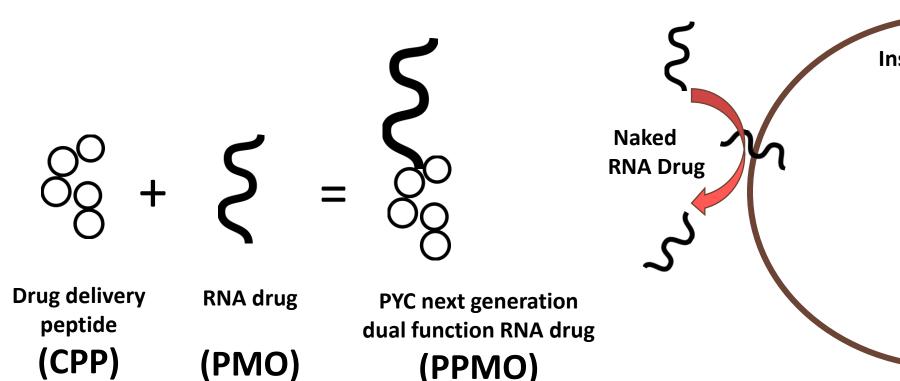
PYC-001 to launch in 2029

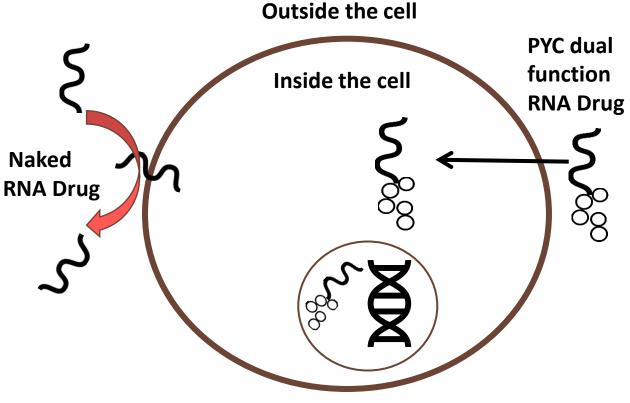
<sup>\*</sup> PYC 96.2% ownership of VP-001 (3.8% ownership by Lions Eye Institute, Australia) and 100% ownership of all other pipeline programs

## PPMO drug delivery platform



- Non-Viral drug delivery platform
- Delivers drug inside target cells
- Drug can show better effect





# RNA therapy is preferred treatment for Ocular Disorders





### RNA Therapy with Peptide Delivery



Reversible



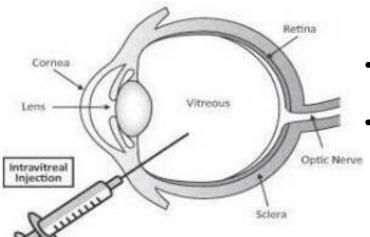
Keeps cell's own control over protein production



Maintains natural balance of different isoforms or types of a particular protein



Intravitreal injection (IVT) is routine and safe



- 10-15mins procedure
- Feel pressure with little or no pain during injection



### Gene Therapy with Viral Delivery

- X Permanent change in gene
- X Cell loses control of protein production
- X Loss of isoform balance
- X Risk of virus inserting into genome
- X Subretinal injection which has risks of retinal detachment
- X Risk of inflammation is higher
- X Multiple recent clinical failures



# A Natural History Study of Patients with Genetically Confirmed Diagnosis of ADOA, caused by OPA1 Mutation- LEAD IN STUDY



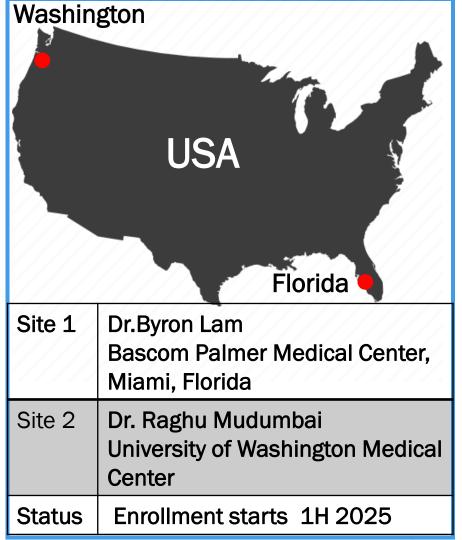
Goal	Study the natural progression of ADOA disease over 2 years							
Eligibility Criteria	OPA1 m No syste	8 years and above OPA1 mutation associated ADOA No systemic disease like ADOA plus BCVA of between 6/12 (20/40) (70 ETDRS) and 6/48 (20/160) (40 ETDRS)						
Study type	Observational ONLY, 5 clinic visits over 2 years							
Number of subjects	40 patients, 80 eyes, Male and Female included							
Study Initiation		1 year Analysis		Final 2 years Analysis				
Ocular tests Clinical assessments	Ocular tests	Ocular tests	Ocular tests	Ocular tests Clinical assessments				
Baseline	6 MONTHS	1 YEAR	18 MONTHS	96 weeks				

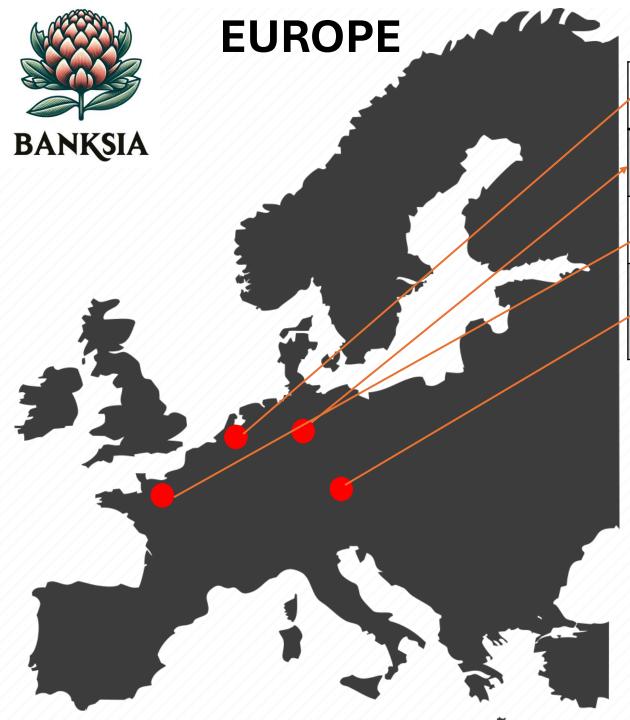


### **BANKSIA Clinical Trial Sites**









### **SITES**

Netherlands	Dr. Camiel Boon Amsterdam University Medical Center
Germany	Dr. Karsten Hufendiek Hannover Medical School
France	Dr.Xavier Zanlonghi CHU de Rennes- Hospital Pontchaillou
Austria	Dr.Georghi Universitats-Augenklinik Medizinische Universitat Graz

### **STATUS**

- Regulatory submission on going
- Expected Study start in 1Half 2025

Interested to participate?

**Contact:** 



banksia@pyctx.com



# **SUNDEW:** PYC-001 Interventional Clinical Trial in

# Patients with Genetically Confirmed Diagnosis of ADOA, caused by OPA1 Mutation

**PYC** 

Therapeutics

Goal		To study the safety of PYC-001 in treatment of the safety of the s				nent of ADOA				
Eligibility Criteria		18 years and above OPA1 mutation associated ADOA No systemic disease like ADOA plus BCVA of between 6/12 (20/40) (70 ETDRS) and 6/48 (20/160) (40 E					(40 ETDRS)	)		
Study type		1 Intravitreal Inj	ection in the	e eye, 10 clin	ic visits ove	r 1 year				
Number of subjects 9 patients, 9 eyes, male and female included										
Dosing		3 cohorts of 3 p	atients each	n – low, mid,	high dose					
Day -1	Day 1	Day 2	Day 7	Day 14	1 month	3 months	6 months	12 months		
<ul><li>Clinical</li><li>assessments</li><li>Ocular Tests</li></ul>	PYC-00: injection	tacte	Ocular tests	Ocular tests	Ocular tests Safety R	Ocular tests eview of 1 m	Ocular tests onth data	Ocular tests		

### **PYC therapeutics clinical studies in ADOA**





### Natural History Study

- Observational study
- 5 clinic visits over 2 years
- Currently enrolling in Sydney, Australia

#### **Eligibility**

8 years and above OPA1 mutation associated ADOA No systemic disease like ADOA plus BCVA of between 6/12 (20/40) (70 ETDRS) and 6/48 (20/160) (40 ETDRS)

**Enrollment begins in Europe in First half of 2025** 

Contact: banksia@pyctx.com

Further information: ClinicalTrials.gov

**ID** NCT06140329



### **PYC-001 Interventional Trial**

- To Assess Safety of treatment with PYC-001
- 1 Intravitreal Injection in 1 eye,
- 10 clinic visits over 1 year
- 3 dose cohorts of 3 patients each

#### **Eligibility**

18 years and above OPA1 mutation associated ADOA

No systemic disease like ADOA plus

BCVA of between 6/12 (20/40) (70 ETDRS) and 6/48 (20/160)

(40 ETDRS)

**Enrollment begins in Europe mid 2025** 

Contact: <a href="mailto:sundew@pyctx.com">sundew@pyctx.com</a>

Further information: ClinicalTrials.gov

ID NCT06461286 PYC THERAPEUTICS



#### **APOLOGIES FROM PYC**

Having posted information about upcoming Clinical Trials in public forums we could not respond to queries from Patients and their care-givers in a timely manner. We have since corrected the issue and would encourage everyone to contact us for information.

Please do not send us any personal history or medical records for privacy purposes. If you would like to talk to us, please share your contact details for us to call or email you.



banksia@pyctx.com sundew@pyctx.com

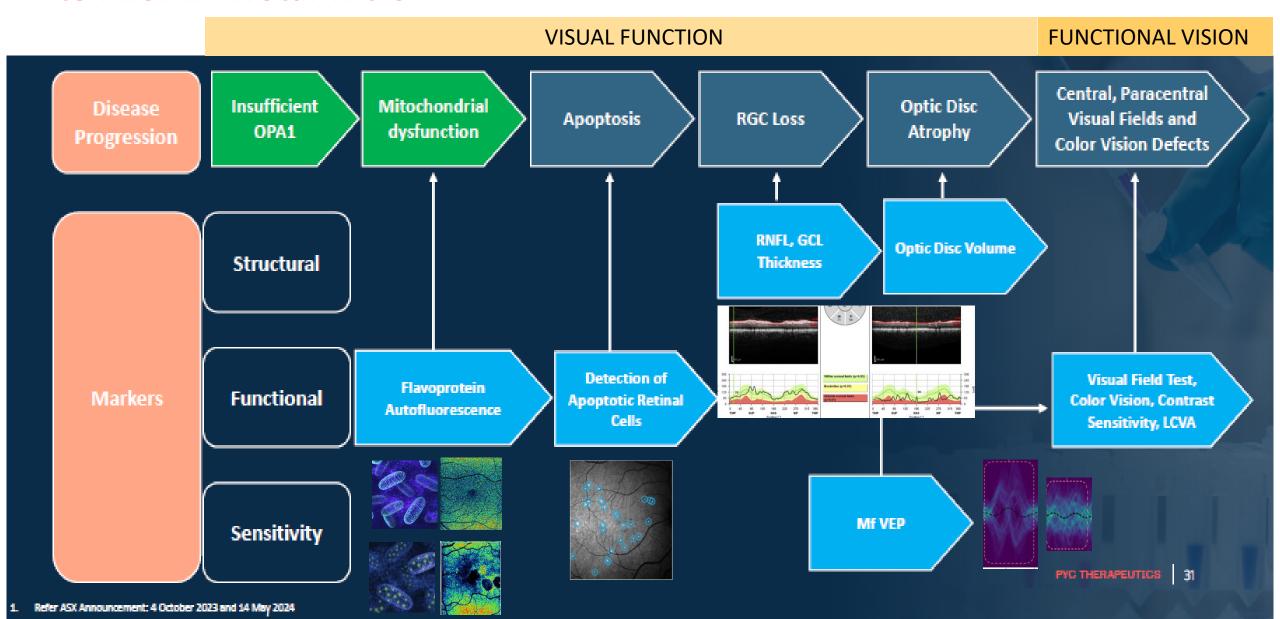


# **END**



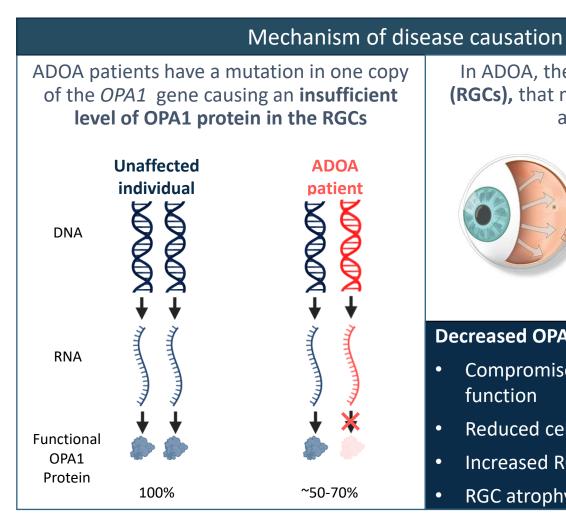
# **Backup slides**

# Structural & functional outcome measures in Phase1a/b studies to inform Pivotal Trials

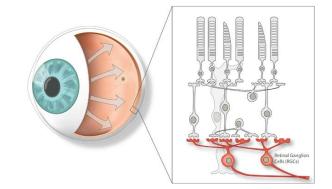


# PYC-001 addresses the root cause of ADOA - insufficient expression of OPA1 protein in the cells that form the optic nerve





In ADOA, the **retinal ganglion cells** (RGCs), that make up the optic nerve are affected

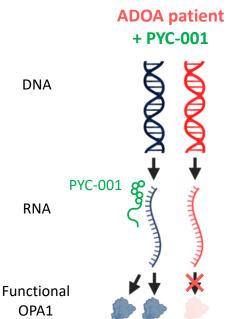


#### **Decreased OPA1 protein leads to:**

- Compromised mitochondrial function
- Reduced cellular bio-energetics
- Increased ROS and apoptosis
- RGC atrophy and vision decline

#### Treatment with PYC-001

PYC-001 treatment increases functional
OPA1 protein expression in a mutation
agnostic manner while maintaining
OPA1 isoform balance

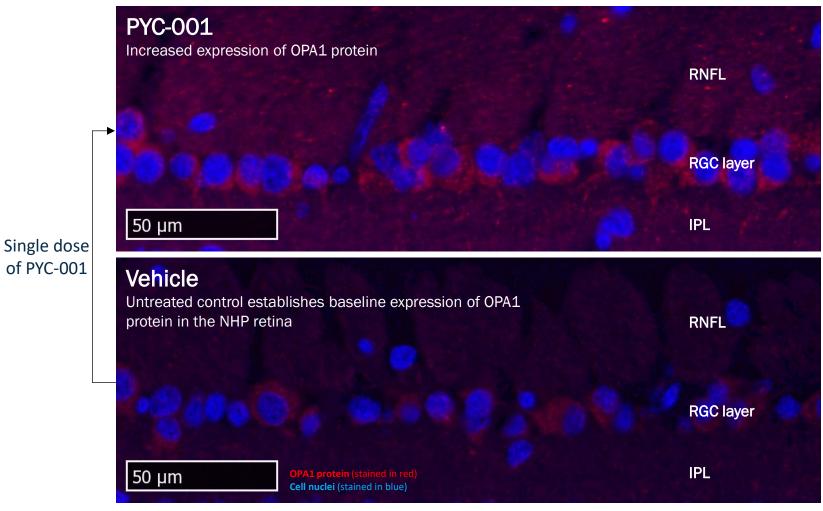


>70%

Protein

### PYC-001 increases OPA1 protein expression in the NHP retina





- A single 15 µg dose of PYC-001 increases OPA1 protein expression in NHPs in the two cellular layers affected by ADOA<sup>1</sup>
- This result was achieved with a dose of PYC-001 that is safe and well tolerated in NHPs<sup>1</sup>
- The 1.6-fold increase in OPA1 protein expression seen in vivo in NHPs<sup>1</sup> is associated with rescue of the functional deficits seen in ADOA patient-derived models in vitro 2

