PYC Therapeutics

Life-changing science

Q1 Investor Update

February 2023

Disclaimer

The purpose of this presentation is to provide an update of the business of PYC Therapeutics Limited (ASX:PYC) ['PYC']. These slides have been prepared as a presentation aid only and the information they contain may require further explanation and/or clarification. Accordingly, these slides and the information they contain should be read in conjunction with past and future announcements made by PYC Therapeutics and should not be relied upon as an independent source of information. Please contact PYC and/or refer to the Company's website for further information.

The views expressed in this presentation contain information derived from publicly available sources that have not been independently verified. No representation or warranty is made as to the accuracy, completeness or reliability of the information.

Any forward looking statements in this presentation have been prepared on the basis of a number of assumptions which may prove incorrect and the current intentions, plans, expectations and beliefs about future events are subject to risks, uncertainties and other factors, many of which are outside PYC's control. Important factors that could cause actual results to differ materially from assumptions or expectations expressed or implied in this presentation include known and unknown risks. Because actual results could differ materially to assumptions made and PYC's current intentions, plans, expectations and beliefs about the future, you are urged to view all forward looking statements contained in this presentation with caution.

This presentation should not be relied on as a recommendation or forecast by PYC. Nothing in this presentation should be construed as either an offer to sell or a solicitation of an offer to buy or sell shares in any jurisdiction.

Discussion topics – Q1 investor update

- An introduction to PYC
- An update on the global life sciences environment
- The RNA therapeutics backdrop within the industry
- Pipeline review
  - PYC's progress through Q4 2022 and YTD 2023
  - Forward view for PYC in 2023
- Q&A

PYC Therapeutics

Life-changing science

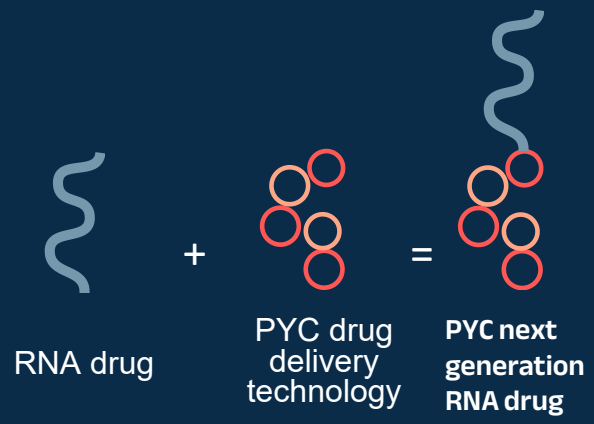
Introduction to PYC

PYC discovers and develops RNA therapies to change the lives of patients with genetic diseases

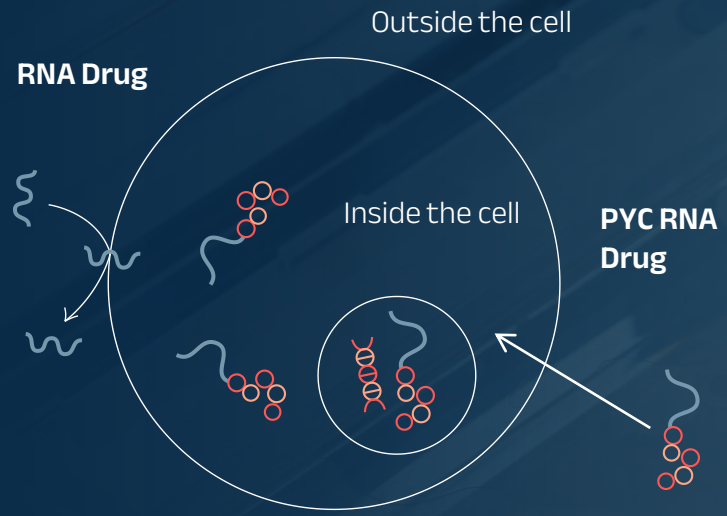
PYC's RNA delivery platform overcomes the primary challenge for precision therapies – ensuring enough drug reaches its target

PYC Therapeutics

PYC combines existing RNA drug design technology with its proprietary drug delivery platform to create next generation RNA therapeutics



PYC's drug delivery platform is used to assist the RNA drug reach its target inside the cell

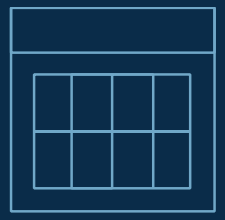


PYC is creating therapies for patients through a strategy anchored on four critical features

PYC Therapeutics

A HIGHER PROBABILITY OF SUCCESS

PYC focuses on monogenic indications. These have the highest likelihood of approval from the start of clinical trials to market of any indication*[1]



A FASTER PATH TO MARKET

The potential for approval following two clinical trials (not three) due to the absence of existing treatment options for patients with the targeted indications

LIKELY RAPID UPTAKE IN MARKET

First-in-class drugs in rare diseases achieve rapid market penetration with a very short lead time to peak sales

ORPHAN DRUG PRICING

Median list price of ~US$150,000[2] per patient per annum making for commercially attractive markets across the pipeline

*Monogenic indications compared to polygenic indications

1. Advancing Human Genetics Research and Drug Discovery through Exome Sequencing of the UK Biobank. doi: https://doi.org/10.1101/2020.11.02.20222232
2. EvaluatePharma. Orphan Drug Report. 2019.

The key to understanding PYC is the Company's focus on genetic validation of the targets it has selected

PYC Therapeutics

A HIGHER PROBABILITY OF SUCCESS

PYC focuses on monogenic indications. These have the highest likelihood of approval from the start of clinical trials to market of any indication*[1]

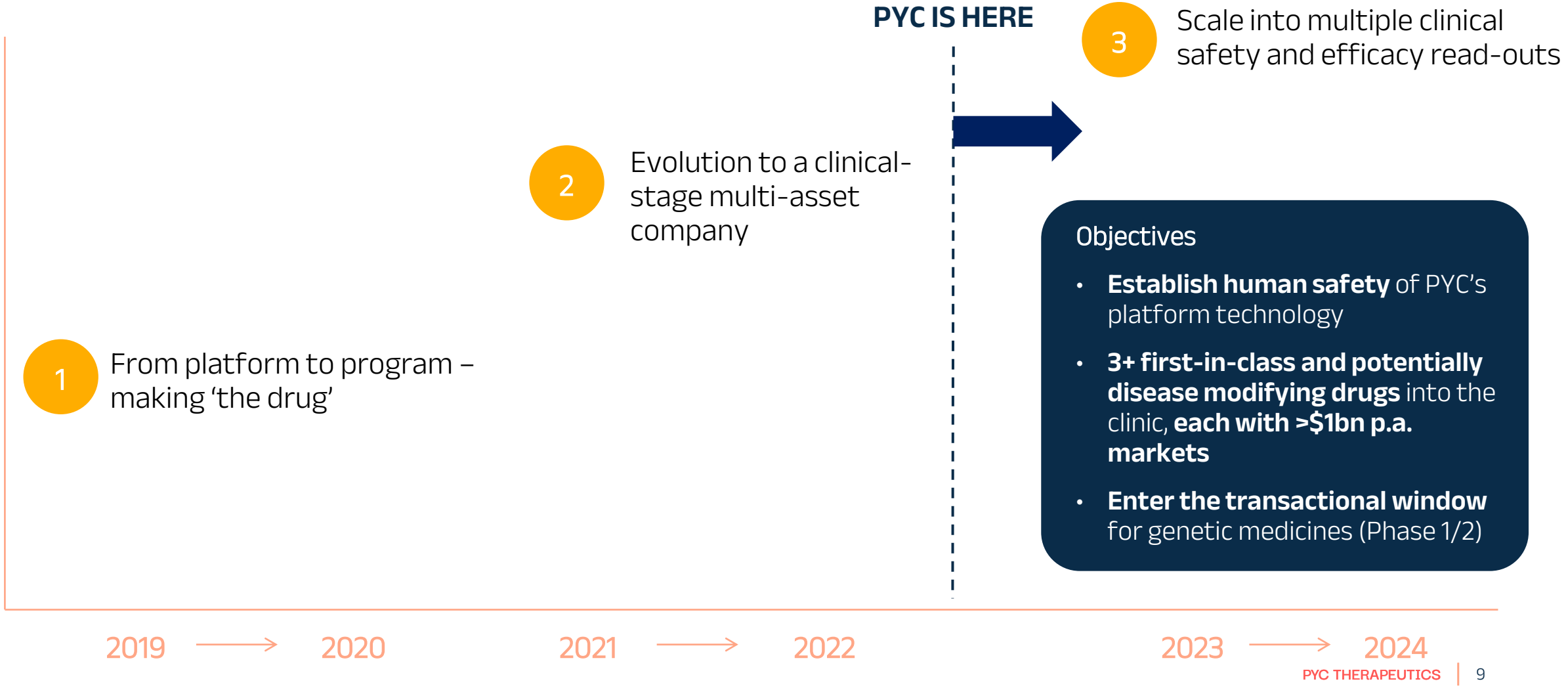
"When you're following Nature's lamp posts… Much higher probability of success"

Atlas Ventures 2022 year in review

*Monogenic indications compared to polygenic indications

1. Advancing Human Genetics Research and Drug Discovery through Exome Sequencing of the UK Biobank. doi: https://doi.org/10.1101/2020.11.02.20222232

PYC is looking to progress 3 first-in-class and disease-modifying drugs into the clinic within 24 months



PYC Therapeutics

Life-changing science

Industry trends

PYC is in the right place at the right time

Right Place

*"Many examples here from **monogenic diseases**, where we know this gene is the gene, and we know this is the problem… And now we know exactly what we can do. So that's a very different paradigm"* [1]

Right Time

*Novartis is focused on potential acquisitions that could fetch biotech companies valued at $5 billion or lower with drugs in **early- to mid-stage** development, said CEO Vas Narasimhan. "If we can make acquisitions there, then we can **participate in the upside**" of the drugs, he said* [2]

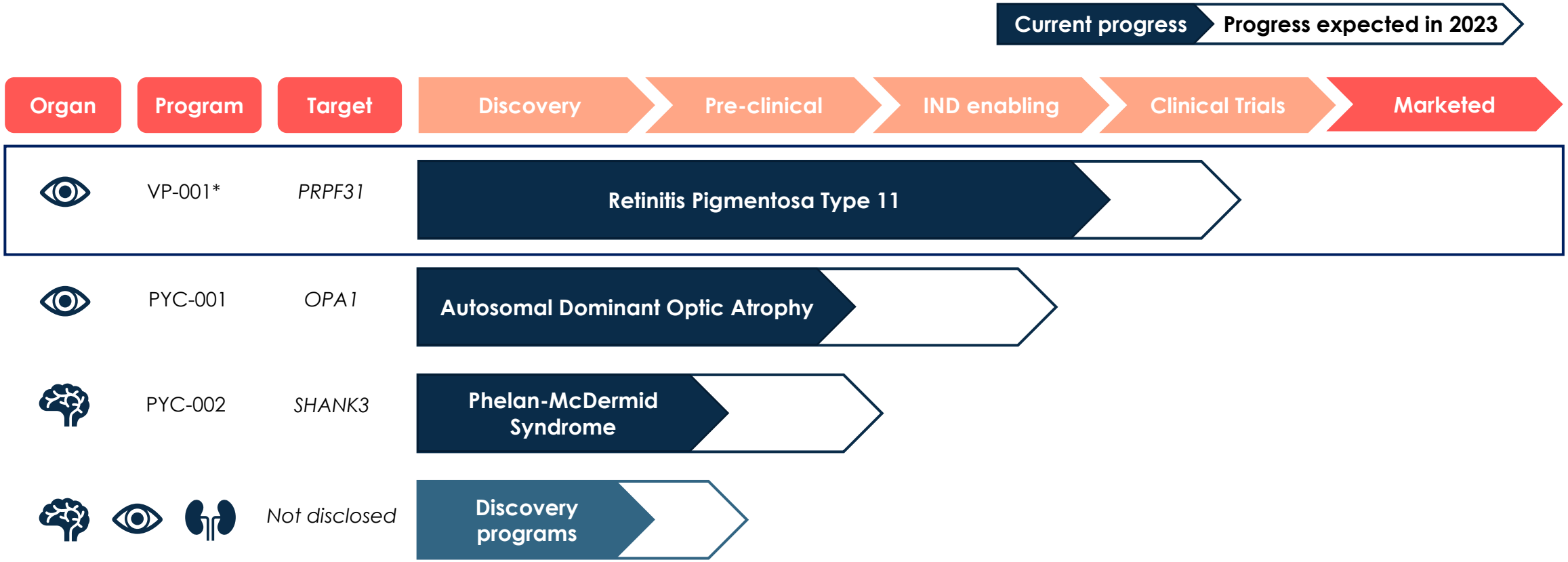
1 genengnews.com A16z's Vijay Pande: Why gene editing will soon be 'off to the races'
2 Jared S. Hopkins. Pfizer, Novartis, Merck Executives Say They Are Hunting for Deals Again. The Wall Street Journal. 2023. https://www.wsj.com/articles/pfizer-novartis-merck-executives-say-they-are-hunting-for-deals-again-11675907783

PYC Therapeutics

Life-changing science

Program deep-dives (progress and anticipated milestones)

RP11 – progress and expected milestones



PYC's technology is a scalable platform with broad potential application across many different disease indications

PYC 95.2% ownership of VP-001 (4.8% ownership by Lions Eye Institute, Australia) and 100% ownership of all other pipeline programs

VP-001 is set to become the first investigational drug with disease-modifying potential for patients with RP11

PYC Therapeutics

5,000 – 10,000 patients

Estimated addressable RP11 patient population in the western world[1]

USD $150,000 p.a.

Median list price of orphan drugs (per patient[2])

Patients are waiting

RP11 patients on retinal disease registries are waiting for access to VP-001 – suggesting a rapid uptake in the event the drug is approved

FDA concessions

Potential to receive multiple FDA concessions:

- Orphan Drug Designation
- Rare Pediatric Disease Designation*
- Accelerated approval[3]

1. Sullivan, L et al. Genomic rearrangements of the PRPF31 gene account for 3% of autosomal dominant retinitis pigmentosa. Invest Ophthalmol Vis Sci. 2006;47(10):4579-88
2. EvaluatePharma. Orphan Drug Report. 2019
3. FDA. Development and Approval Process | Drugs. 2022.

*Based on the median age of onset of RP11 of 17 years of age – see: Lisbjerg, K et al. Disease progression of retinitis pigmentosa caused by PRPF31 variants: A retrospective study with up to 36 years follow-up. Invest. Ophthalmol. Vis. Sci. 2022;63(7):4487 – F0274. Additional studies support the median age of onset in childhood.

PYC is set to generate human safety and efficacy data for VP-001[1]

Phase 1/2 Human Trial → Pivotal Trial

Part 1

- Single Ascending Dose Study
- 3+3+3 dose escalation in RP11 patients
- Approx 1 year study

Outcome measures

- Safety and Tolerability

Part 2

- Multiple dose expansion study
- 3 groups of 10 patients each
- Two active groups plus control group
- Approx 2 year study

Outcome measures

- Safety and Tolerability
- Efficacy readout

Pivotal Trial

- Trial design will be informed by:

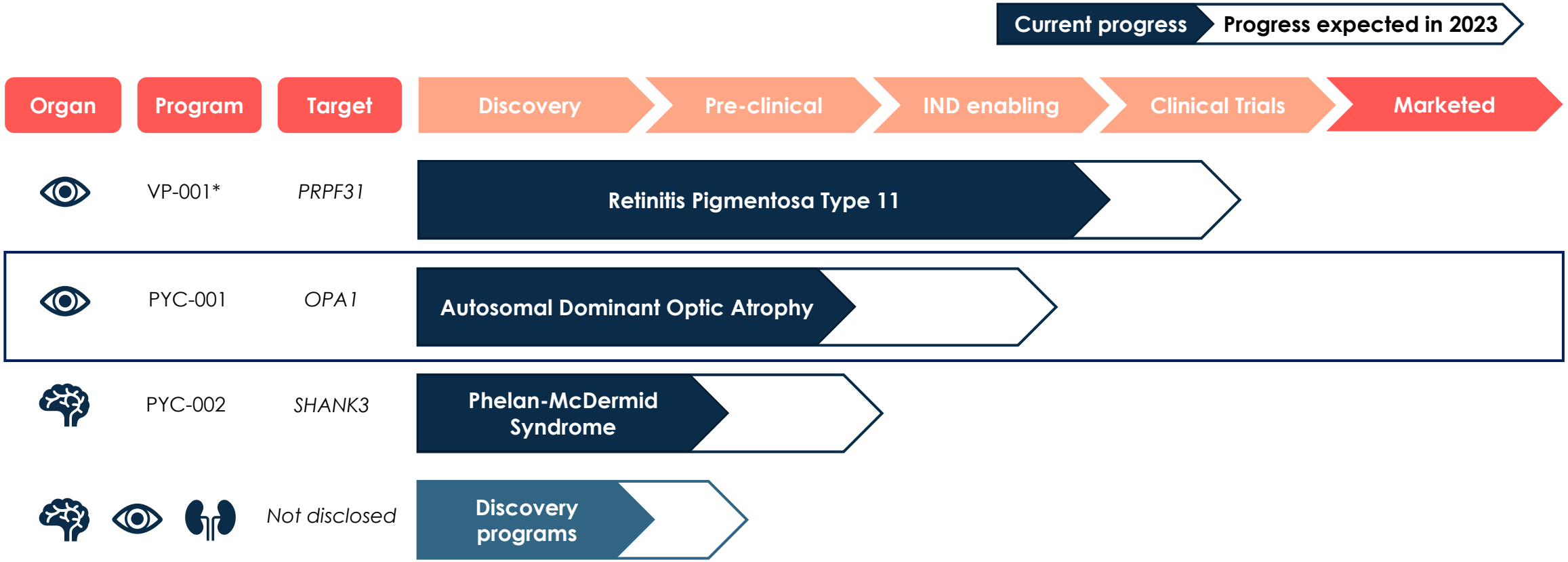
i. Observations made in Phase 1/2 study; and

ii. Insights generated in the Natural History Study

Natural History Study running concurrently

1 Pending confirmation of acceptance of PYC's Investigational New Drug application for VP-001 by the US Food and Drug Administration

ADOA – progress and expected milestones



PYC's technology is a scalable platform with broad potential application across many different disease indications

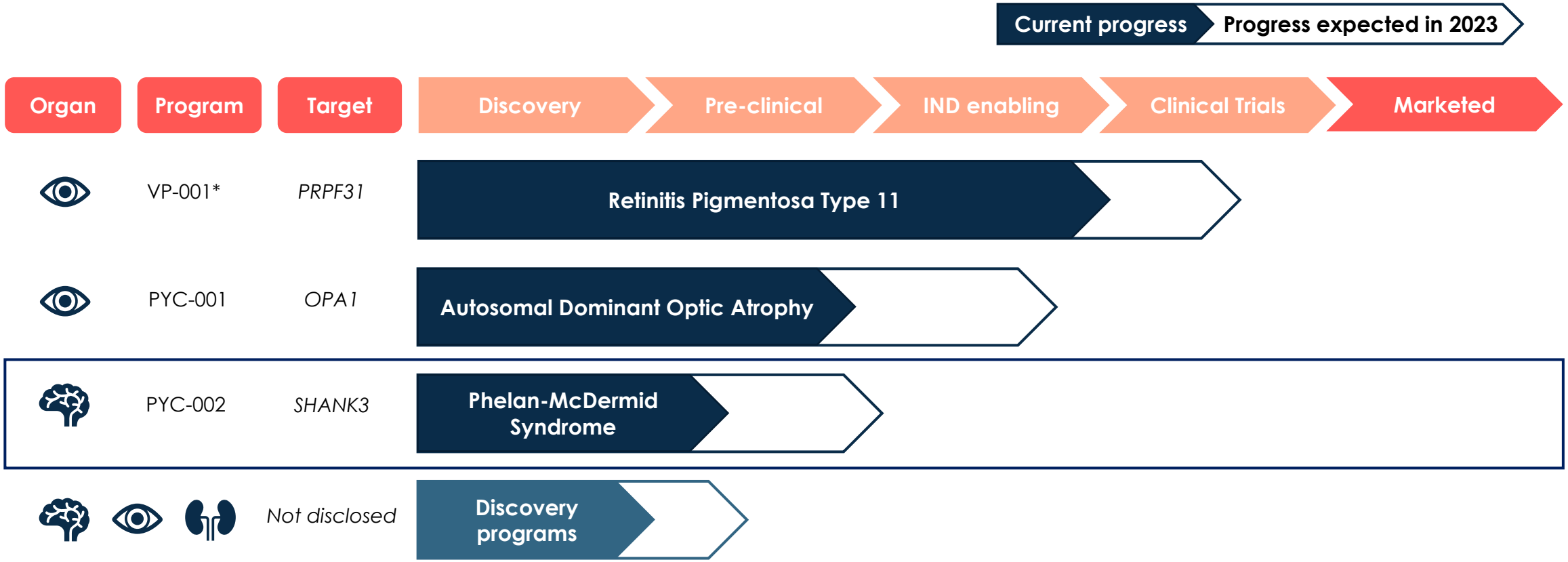
PYC 95.2% ownership of VP-001 (4.8% ownership by Lions Eye Institute, Australia) and 100% ownership of all other pipeline programs

Results from the testing of PYC-001 in 'mini-eyes' are anticipated in Q2

*"The explosive developing field of induced pluripotent stem cells (iPSCs) reprogrammed from primary patient-derived cell cultures provides the **remarkable and unique** opportunity to obtain specialized terminally differentiated cells and organoids to study '**disease in a dish**' models, including mini-eyes and mini-brains"*

Valerio Carelli, Chiara La Morgia, Fred N. Ross-Cisneros, Alfredo A. Sadun, Optic neuropathies: the tip of the neurodegeneration iceberg, *Human Molecular Genetics*, Volume 26, Issue R2, 01 October 2017, Pages R139–R150

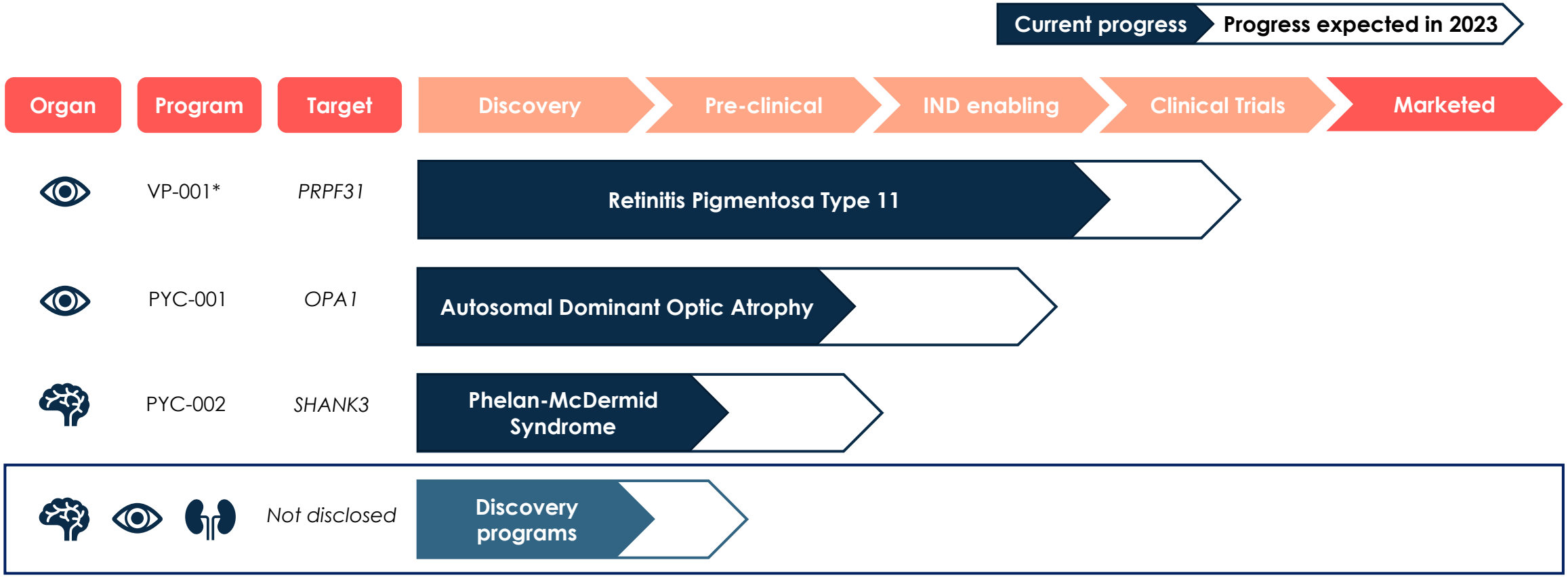
PMS – progress and expected milestones



PYC's technology is a scalable platform with broad potential application across many different disease indications

PYC 95.2% ownership of VP-001 (4.8% ownership by Lions Eye Institute, Australia) and 100% ownership of all other pipeline programs

Platform/discovery – progress and expected milestones



PYC's technology is a scalable platform with broad potential application across many different disease indications

PYC 95.2% ownership of VP-001 (4.8% ownership by Lions Eye Institute, Australia) and 100% ownership of all other pipeline programs

PYC's technology is rapidly scalable – supporting the Company's ambition of progressing a new drug into the clinic every year

"Once the nucleic acid chemistry and the delivery method are established, the production of RNA-based drugs for a new target can be achieved in a relatively short period using these pre-established methodologies"

Kim, YK. RNA therapy: rich history, various applications and unlimited future prospects. Exp Mol Med 54, 455–465 (2022).

PYC Therapeutics

Life-changing science

Q&A