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PYC Therapeutics

September 28, 2021

PYC'S RNA DRUG CANDIDATE IS ABLE TO PENETRATE THE RETINA OF A LARGE EYE RESEMBLING THAT OF A HUMAN

PYC Therapeutics is developing a new class of precision drug that combines the Company's platform drug delivery technology with its RNA drug design capabilities

This precision medicine technology can reach the deepest layers of the retina in a rabbit eye which is similar in structure and size to that of a human

If accompanied by successful safety and tolerability data (expected in Q4 2021), these results have the potential to demonstrate the competitive advantage of PYC's technology in an area of major unmet need - blinding eye diseases

Drug delivery in the retina has been a major challenge in the progression of precision medicines for blinding eye diseases – PYC's technology has the potential to change the lives of patients with genetic eye diseases

PERTH, Australia and SAN DIEGO, California – September 28, 2021 – PYC Therapeutics (ASX:PYC) is a biotechnology company combining two complementary platform technologies (precision drug design with facilitated drug delivery) to develop a new generation of RNA therapeutics to change the lives of patients with inherited diseases.

PYC today announced the first results from its non-Good Laboratory Practice (non-GLP) studies which evaluated the ability of its proprietary RNA therapeutic modality to reach high value target cells within the retina of rabbits. These results represent the first assessment of PYC's technology in an eye that resembles that of a human in both structure and size and provide encouraging evidence in support of PYC's upcoming clinical trials which are anticipated to begin in ~12 months time.

PYC's RNA therapeutic modality:

i) reached all layers of the retina following intravitreal administration in the rabbit eye;
ii) reached the nucleus of the target cell type in the Company's co-lead program for Retinitis Pigmentosa type 11; and
iii) successfully engaged the target pre-messenger RNA resulting in the desired change in the target messenger RNA (see Figure 1).

Today's results, if accompanied by successful outcomes in PYC's ongoing safety and tolerability studies (results expected in Q4 2021), should represent comprehensive non-clinical validation of PYC's drug delivery technology in the eye[1]. Effective drug delivery to the retina remains one of the most significant unresolved challenges in ophthalmology[2]

[1] In the non-GLP setting with GLP studies to follow

[2] Drug Delivery to the Posterior Segment of the Eye: Biopharmaceutic and Pharmacokinetic Considerations. Varela-Fernández et al. Pharmaceutics 2020, 12, 269; doi:10.3390/pharmaceutics12030269

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and overcoming this problem holds the promise of improved patient outcomes across a broad spectrum of blinding eye diseases[3].

The results position PYC on the cusp of the transition to a clinical-stage company with a differentiated and scalable platform technology that overcomes a fundamental challenge in the development of precision medicines.

Background

PYC is progressing through non-GLP studies in its co-lead program (VP-001 to treat Retinitis Pigmentosa type 11[4]) as an essential step towards clinical trials. These studies have important implications for the program, but also for PYC's drug delivery platform as a whole and its pipeline of drug candidates for blinding eye diseases.

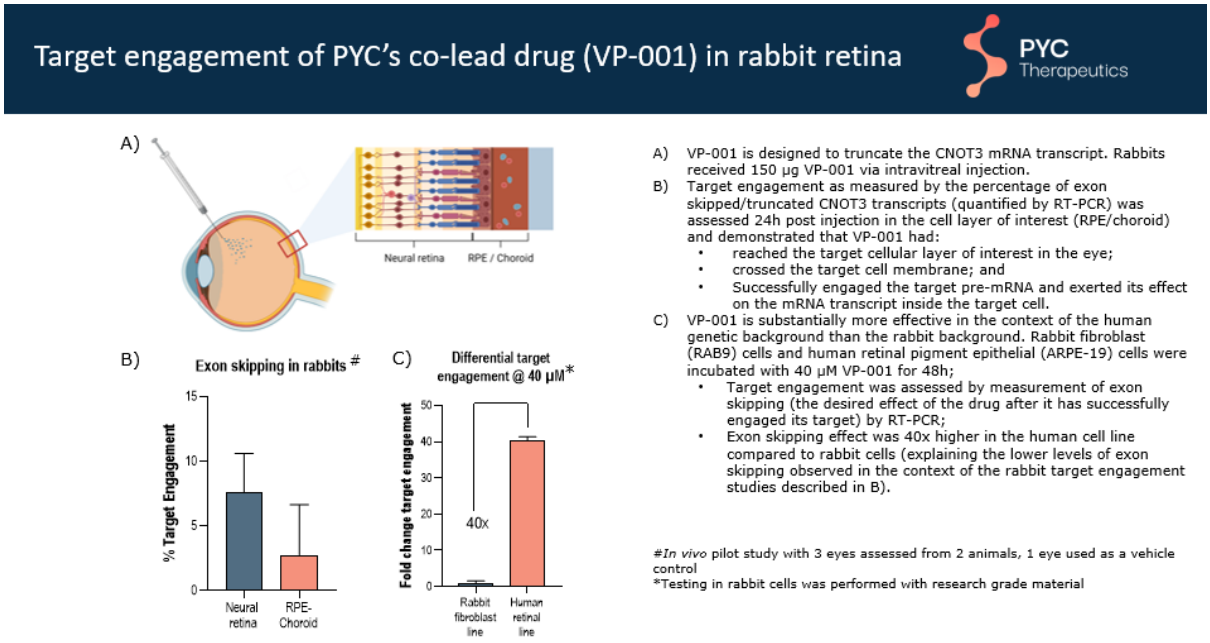
The objectives of these studies are to:

i) Demonstrate in a large eye (similar to a human eye) that PYC's RNA therapeutic modality has the ability to reach the target cells located in the retina at the back of the eye. This has been confirmed in the context of the data contained within this announcement;

ii) Demonstrate safety and tolerability of the modality (studies currently in progress with results expected in Q4); and

iii) Define the dosing interval in the upcoming clinical trials as this dimension is informed by the half-life of the drug candidate[5] (studies scheduled to commence in September).

Figure 1



[3] The future of retinal gene therapy: evolving from subretinal to intravitreal vector delivery. Ross et al. Neural Regeneration Research. DOI: 10.4103/1673-5374.306063

[4] VP-001 is owned by Vision Pharma which is a collaboration between PYC Therapetuics (90% shareholder) and the Lions Eye Institute (10% shareholder)

[5] The half-life of a drug is an estimate of the period of time that it takes for the concentration or amount in the body of that drug to be reduced by exactly one half (50%).

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About PYC Therapeutics

PYC Therapeutics (ASX: PYC) is a pre-clinical stage biotechnology company pioneering a new generation of RNA therapeutics that utilize PYC's proprietary library of naturally derived cell penetrating peptides to overcome the major challenges of current genetic medicines. PYC believes its PPMO (Peptide conjugated Phosphorodiamidate Morpholino Oligomer) technology enables a safer and more effective RNA therapeutic to address the underlying drivers of a range of genetic diseases for which no treatment solutions exist today. The Company is leveraging its leading-edge science to develop a pipeline of novel therapies including three preclinical stage programs focused on inherited eye diseases and a preclinical discovery program focused on neurodegenerative diseases. PYC's discovery and laboratory operations are located in Australia, and the Company recently launched an expansion into the U.S. for its preclinical, clinical, regulatory and business development operations. For more information, visit pyctx.com, or follow us on LinkedIn and Twitter.

Forward looking statements

Any forward-looking statements in this ASX announcement 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 the Company's control. Important factors that could cause actual results to differ materially from assumptions or expectations expressed or implied in this ASX announcement include known and unknown risks. Because actual results could differ materially to assumptions made and the Company's current intentions, plans, expectations and beliefs about the future, you are urged to view all forward-looking statements contained in this ASX announcement with caution. The Company undertakes no obligation to publicly update any forward-looking statement whether as a result of new information, future events or otherwise.

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

This ASX announcement was approved and authorized for release by the Board of PYC Therapeutics Limited

CONTACTS:

INVESTORS
Deborah Elson/Matthew DeYoung
Argot Partners
deborah@argotpartners.com
matthew@argotpartners.com

MEDIA
Leo Vartorella
Argot Partners
leo@argotpartners.com