

Drug delivery >100% more effective in animals -Amended

Background

PYC is a drug development company taking precision medicines for rare genetic disorders into clinical development. PYC's core focus is a flagship program for the leading cause of childhood blindness - a condition called retinitis pigmentosa.

Highlights

- PYC's drug delivery technology is **more than twice as effective** as previously demonstrated at reaching the target cell for our lead drug program in animals
- This results supports our ability to deliver effective and non-toxic doses of a drug to the deepest layer of the retina – further de-risking the path to market for our lead program (a treatment for the leading cause of childhood blindness)

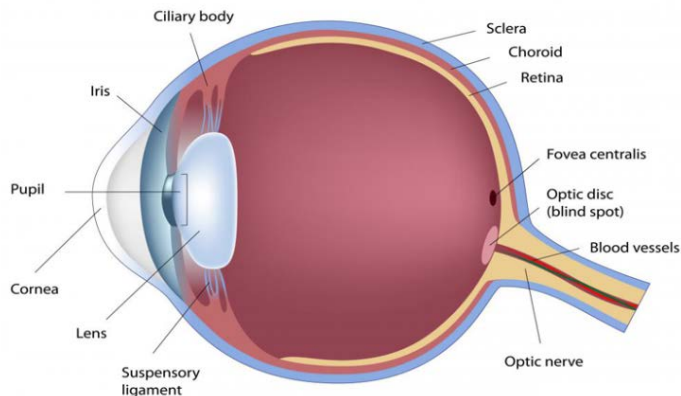
Announcement

PYC Therapeutics (the **Company** or **PYC**) announces that new animal data demonstrates that the Company's drug delivery technology is substantially more effective at reaching our target cell layer for our lead drug program (Retinitis Pigmentosa) than previously described.

The results come after an improved method of isolating our target cells (the Retinal Pigment Epithelium or 'RPE') was devised. Previously the Company was unable to differentiate between the two deepest cellular layers at the back of the rodent eye (the RPE and the choroid). Now, PYC has been able to separate the RPE from the choroid in order to give a more accurate picture of the effectiveness of our delivery technology in the specific cells that we are seeking to target for the Retinitis Pigmentosa program (the RPE and not the choroid).

Figure 1. Anatomy of the human eye demonstrating the adjacent layers of the retinal pigment epithelium (labelled here as 'Retina') and Choroid

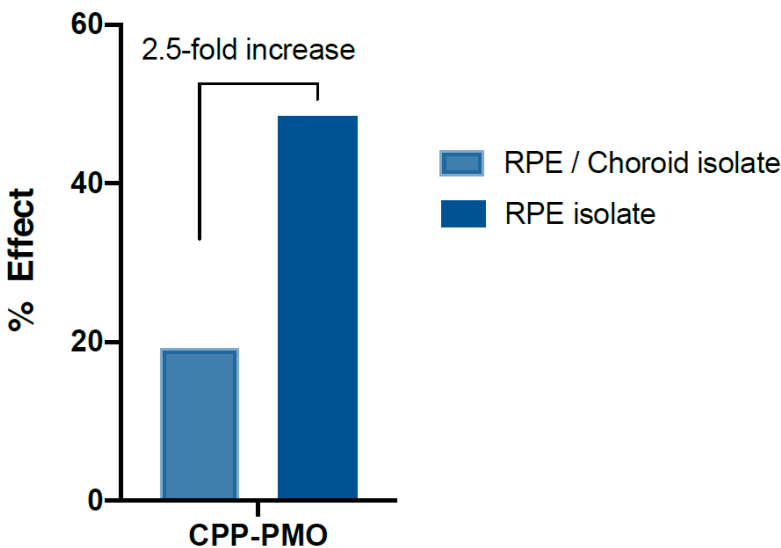
Human Eye Anatomy



The greater effectiveness of the delivery technology means that PYC will be able to deliver more drug to the target cell at lower concentrations. This increases the chance PYC's drug will both:

- i) have a meaningful therapeutic effect; and
- ii) demonstrate the required level of safety (non-toxicity) at the effective dose.

Figure 2. Results from an improved Retinal Pigment Epithelium (RPE) isolation protocol demonstrate a 2.5-fold higher effect at a single dose of 1.6 micrograms CPP-PMO per eye at 7 days post-administration compared to the previously used RPE/Choroid isolation protocol.



Detailed explanation of Figure 2: The chart depicts a group of 9 mice (left hand bar) treated with a CPP-PMO whose retina was harvested and the exon-skipping in two cellular layers (the Retinal Pigment Epithelium (RPE) and choroid) was measured. The right hand bar represents a group of 3 mice treated with the same CPP-PMO at the

same dose and whose retina was harvested to assess exon-skipping in a single cellular layer (the RPE). The exon-skipping in our target cellular layer for the lead Retinitis Pigmentosa program (the RPE) is 2.5 fold higher than the combined RPE and choroid indicating greater effectiveness of the drug in our target cellular layer. This result is statistically significant with an unpaired t-test, two tailed, of $p=0.0082$. The result complements earlier announcements comparing PYC's CPPs to competitive delivery technologies (see ASX announcement of 23 July 2019) and also alternative chemistries for the backbone of the antisense oligonucleotide drug cargo (see ASX announcement of 3 September 2019).

Operational update

Having evaluated more than 100 Cell Penetrating Peptides (CPPs) in animals over the past 5 months, PYC is now finalising our lead drug molecule within the lead Retinitis Pigmentosa program. The significant investment made in selecting the best CPP in this thorough evaluation is expected to benefit our path through formal IND-enabling studies and subsequent clinical development.

The lead drug will be defined before Christmas this year with important read-outs of the drug's effectiveness expected in Q1 2020 in both:

- i) human retinal cells from patients with Retinitis Pigmentosa; and
- ii) 3D 'optic cup/retina in a dish' models derived from patients with Retinitis Pigmentosa.

This ASX announcement was approved and authorised for release by Rohan Hockings, Chief Executive Officer.

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About PYC Therapeutics

PYC Therapeutics (ASX: PYC) is a drug development company solving a major challenge in the development of a revolutionary new class of drugs – delivering large drugs into cells. Cell Penetrating Peptides (CPPs) can overcome ‘the delivery challenge’ and provide access for a wide range of potent and precise drug ‘cargoes’ to the ‘undruggable genome’ – the highest value drug targets that exist inside cells. PYC Therapeutics is using its CPP platform to develop a pipeline of novel therapies with an initial focus on inherited retinal diseases.

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.

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