ASX ANNOUNCEMENT

16 December 2020

Visual evidence of lead drug's efficacy in patient-derived model

Highlights

PYC's lead drug candidate, VP-001, for the treatment of Retinitis Pigmentosa type 11 (RP11) is currently being evaluated in patient-derived models – the gold standard in preclinical efficacy assessment for genetic eye diseases.

- Today's results demonstrate VP-001's ability to correct the structural deficiency in patient derived retinal cells that is one of the key causes of vision loss in RP11 patients[1]
- This result further builds PYC's confidence in the efficacy of VP-001; VP-001 is now supported by 3 critical efficacy readouts, including results earlier this year showing VP-001 corrects two other key deficiencies in the retinal cells of RP11 patients[2]
- VP-001's next major milestone will be large animal toxicity assessments scheduled to be completed in the 1st half of 2021

Announcement

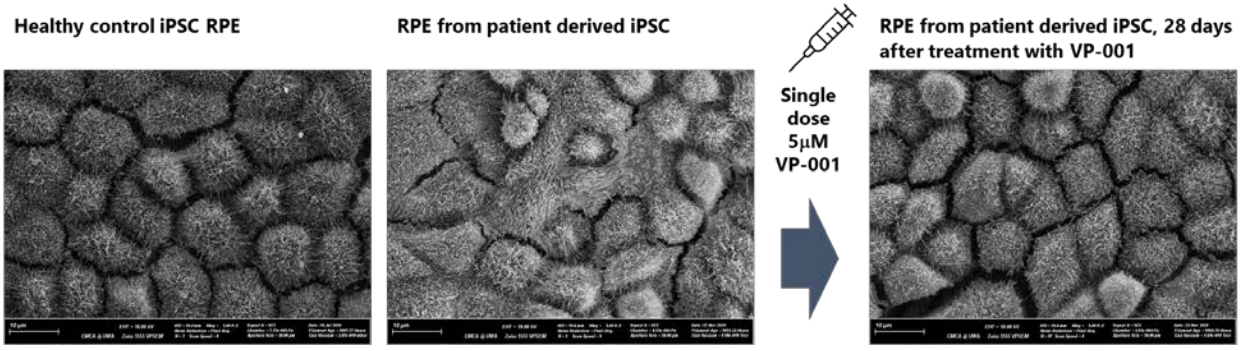

Figure 1. Scanning electron microscopy of retinal pigment epithelium cells derived from control and patient iPSC. Images selected as representative of full data set.

PYC Therapeutics, (ASX: PYC) ('The Company' or 'PYC') is a RNA therapeutics company developing new treatments for severe unmet patient needs. PYC and our partners at the Lions Eye Institute (LEI) are developing the first disease-modifying therapy (an experimental drug known as VP-001) for patients with Retinitis Pigmentosa type 11 (RP11) through our joint venture Vision Pharma Pty Ltd (in which PYC is a 90% shareholder and LEI a 10% shareholder).

---

[1] Buskin A. Disrupted alternative splicing for genes implicated in splicing and ciliogenesis causes PRPF31 retinitis pigmentosa. *Nat Commun*. 2018 Oct 12;9(1):4234.

[2] See ASX announcement 1 April 2020

The Company advises that its lead drug program, VP-001, has proven effective in correcting a critical structural deficiency in patient-derived models. PYC conducted these experiments in retinal pigmented epithelium cells (RPE) differentiated from patient-derived iPSC[3] – this model allows PYC to have a surrogate of the patient's eye in a dish. These models have been shown to recapitulate the disease state of humans and they are viewed as the gold standard in preclinical efficacy readouts for genetic eye disease[4].

Healthy RPE has a well-defined isotropic structure (looks like well defined brick pavers, all the same dimensions and similar shape), and dense microvilli (they look 'hairier', and that 'hair' is finer and appears to connect between cells). RP11 Patient RPE cells lack well developed isotropic structure and 'microvilli' that are required for the RPE to conduct their critical function of maintaining the photoreceptor cells (Fig.1).

When treated with a single dose of VP-001, the patient iPSC derived RPE showed improvement in both isotropic structure and microvilli health when assessed 28 days after treatment (only time point assessed). This was demonstrated across 2.5μM, 5μM, and 10μM doses of VP-001 (See Fig 1, 5μM dose shown).

This result follows two other critical readouts for VP-001 earlier this year that showed improvement in phagocytosis, and cilia incidence and length for treated RPE derived from patient iPSC (see Fig. 2). PYC is focused on continuing to build out the efficacy profile of VP-001 to enable optimal dosing in the clinic, while also delivering our large animal toxicity studies in the first half of 2021.

Chief Scientific Officer, Professor Sue Fletcher, commented: "Patient derived models provide us with unique insight into what we might expect when our drug is delivered into the patient's eye. I'm so pleased to see the results from VP-001 as announced today and throughout the year. Our team is now focused on refining expected clinical dosing and finalising our larger animal toxicity studies"

US Chief Executive Officer, Sahm Nasseri, commented: "Patients with Retinitis Pigmentosa type 11 have no disease-modifying treatments available today. We are developing VP-001 at pace to address this need, and these results further demonstrate that it is indeed a world-class product, one of several in PYC's pipeline. Our teams are dedicated to ensuring VP-001 gets to first-in-human studies and ultimately to market as quickly as possible.

[3] iPSC – induced pluripotent stem cells

[4] See Foundation Fighting Blindness Webinar: 'Disease relevant translation models in ocular drug development: Types, challenges, advantages, and alternatives' November 2020, available at the Foundation Fighting Blindness website

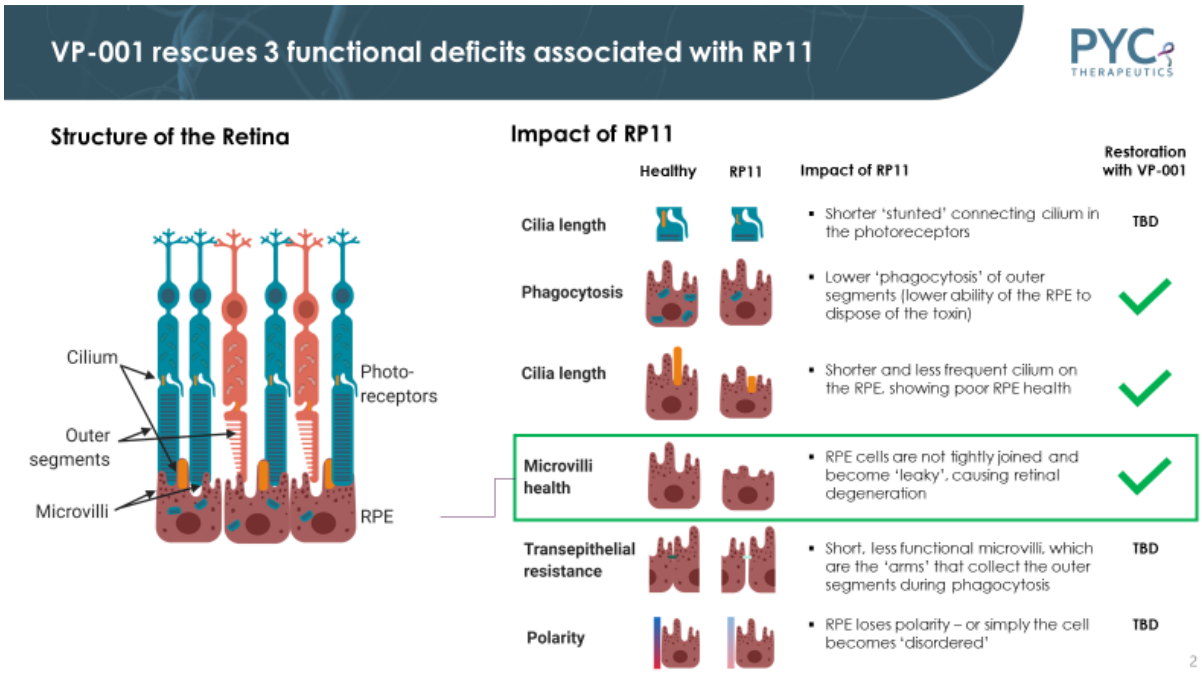

Figure 2. Functional deficits found in the retinal cells of patients with RP11. Today's announcement relates to Microvilli health.

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

ENDS For further information, please contact:

INVESTORS

Kaggen Ausma
CBO
info@pyctx.com

About PYC Therapeutics

PYC Therapeutics (ASX: PYC) is a drug development company based in the United States and Australia, progressing life-changing science towards areas of important unmet patient need.

The Company combines world-leading RNA therapeutics design with a revolutionary delivery technology based on Cell Penetrating Peptides (CPPs) to overcome the major challenges of current gene-therapies. PYC's CPPs solve the 'delivery challenge', providing safe and effective access for a wide range of potent and precise drug cargoes to the highest value drug targets that exist inside cells. The Company is leveraging its leading-edge science to develop a pipeline of novel therapies with an initial focus on inherited eye diseases for which PYC has 3 defined pre-clinical programs.

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.

Tel: +61 8 6151 0994

pyctx.com

PYC Therapeutics Limited

ACN 098 391 961