PURETECH

GIVING LIFE TO SCIENCE®

PureTech Announces Publication of Glyph™ Platform Preclinical Proof-of-Concept Study in Journal of Controlled Release

February 25, 2021

RNS Number : 3901Q
PureTech Health PLC
25 February 2021

25 February 2021

PureTech Health plc

PureTech Announces Publication of Glyph™ Platform Preclinical Proof-of-Concept Study in *Journal of Controlled Release*

Publication demonstrates the ability to directly target gut lymphatics with an orally dosed small molecule immunomodulator

First product candidate from Glyph platform, LYT-300 (oral allopregnanolone), expected to enter clinical trial by the end of 2021

PureTech Health plc (Nasdaq: PRTC, LSE: PRTC) ("PureTech" or the "Company"), a clinical-stage biotherapeutics company dedicated to discovering, developing and commercializing highly differentiated medicines for devastating diseases, today announced the publication of a research paper in the *Journal of Controlled Release*. Results provide further preclinical proof-of-concept for PureTech's Glyph platform technology, which is designed to traffic small molecule therapeutics directly into the lymphatic system via oral administration.

Results highlighted in the publication demonstrate the ability of a therapeutic modality built from PureTech's Glyph platform to target administration of mycophenolic acid (MPA), an immunosuppressant, into lymph and directly into gut-draining mesenteric lymph nodes (MLNs). As a key nexus of immune cell trafficking, MLNs play major roles in the pathophysiology of a range of conditions including inflammatory and autoimmune diseases, cancer, and metabolic diseases.

"The Glyph platform has tremendous therapeutic potential for orally administered medicines because it may allow us to bypass first-pass metabolism in the liver and directly target the lymphatic system, which is a critical site for immune cell programming and trafficking. With this study, we have shown that the platform enhances immunomodulation in the mesenteric lymph nodes," said Christopher Porter, Ph.D., Director of the Monash Institute of Pharmaceutical Sciences at Monash University in Melbourne, lead author of the study and a PureTech collaborator. "This *in vivo* proof of concept is an excellent foundation for advancing drug development that leverages the Glyph platform."

As published, oral administration of a Glyph-derived prodrug of MPA resulted in a >80-fold increase in uptake of total MPA into the lymphatic system and a >20-fold increase in MPA concentrations in MLNs relative to what was achieved with oral dosing of free MPA alone. Furthermore, Glyph-MPA was significantly more potent than free MPA in inhibiting T cell proliferation in mice challenged with antigen. Plasma MPA levels achieved were similar following

Glyph-MPA and free MPA dosing, indicating low potential for the emergence of new systemic side effects. Additionally, a prodrug of a fluorescent tracer was shown to rapidly accumulate in MLNs following administration. Together, these findings provide further support of the potential of the Glyph technology to enable oral administration of small molecule drugs directly to the lymphatic system, including drugs with immunomodulatory properties.

"What's interesting here is the idea that one might be able to target and administer immunomodulatory drugs to the mesenteric lymph nodes and therefore selectively suppress immune responses that emanate from those lymph nodes," said Joseph Bolen, Ph.D., Chief Scientific Officer at PureTech. "The Glyph platform is a highly innovative technology and we are moving quickly to build off this foundational research and establish additional therapeutic applications, including bypassing first pass metabolism and enabling oral bioavailability of parenteral drugs."

About the Glyph™ Platform

Glyph is PureTech's synthetic lymphatic-targeting chemistry platform, which is designed to employ the body's natural lipid absorption and transport process to orally administer drugs via the lymphatic system. PureTech believes this technology has the potential to (1) enable direct modulation of the immune system via drug targets present in mesenteric lymph nodes and (2) provide a broadly applicable means of enhancing the bioavailability of orally-administered drugs that would otherwise become inactive by first-pass liver metabolism. PureTech has demonstrated proof-of-concept by achieving therapeutically relevant plasma levels following oral administration of a neurosteroid, allopregnanolone, in small animal and non-human primate model systems. This and other work have resulted in the generation of PureTech's lead Glyph product candidate, LYT-300 (oral allopregnanolone), which is expected to enter a clinical trial by the end of 2021. Additionally, PureTech announced an alliance with Boehringer Ingelheim in 2019, which is initially focused on evaluating the feasibility of applying the Glyph technology platform to one of its immuno-oncology product candidates. PureTech retains rights to all other applications of this technology outside of the specific BI candidates being studied. The Glyph technology platform is based on the pioneering research of Christopher Porter, Ph.D., and his team at the Monash Institute of Pharmaceutical Sciences at Monash University in Melbourne, which PureTech has exclusively licensed.

About PureTech Health

PureTech is a clinical-stage biotherapeutics company dedicated to discovering, developing and commercializing highly differentiated medicines for devastating diseases, including intractable cancers, lymphatic and gastrointestinal diseases, central nervous system disorders and inflammatory and immunological diseases, among others. The Company has created a broad and deep pipeline through the expertise of its experienced research and development team and its extensive network of scientists, clinicians and industry leaders. This pipeline, which is being advanced both internally and through PureTech's Founded Entities, as of the date of PureTech's most recently filed Registration Statement on Form 20-F, was comprised of 24 products and product candidates, including two that have received FDA clearance and European marketing authorization. All of the underlying programs and platforms that resulted in this pipeline of product candidates were initially identified or discovered and then advanced by the PureTech team through key validation points based on the Company's unique insights into the biology of the brain, immune and gut, or BIG, systems and the interface between those systems, referred to as the BIG Axis.

For more information, visit www.puretechhealth.com or connect with us on Twitter @puretechh.

Cautionary Note Regarding Forward-Looking Statements

This press release contains statements that are or may be forward-looking statements, including statements that relate to the company's future prospects, developments, and strategies. The forward-looking statements are based on current expectations and are subject to known and unknown risks and uncertainties that could cause actual results, performance and achievements to differ materially from current expectations, including, but not limited to, our expectations regarding the potential therapeutic benefits of our product candidates, our expectations regarding the Glyph™ platform and those risks and uncertainties described in the risk factors included in PureTech Health plc's registration statement on Form 20-F, declared effective by the Securities and Exchange Commission on November 12, 2020 and other regulatory filings for PureTech Health plc. These forward-looking statements are based on assumptions regarding the present and future business strategies of the company and the environment in which it will operate in the future. Each forward-looking statement speaks only as at the date of this press release. Except as required by law and regulatory requirements, neither the company nor any other party intends to update or revise these forward-looking statements, whether as a result of new information, future events or otherwise.

Contact:

Investors

Allison Mead Talbot
+1 617 651 3156
amt@puretechhealth.com

EU media

Ben Atwell, Rob Winder
+44 (0) 20 3727 1000
ben.atwell@FTIconsulting.com

END

NRAEADASALEFEFA