



## **PureTech Health Announces Collaboration with Boehringer Ingelheim to Advance Immuno-oncology Product Candidates using its Lymphatic Targeting Platform**

April 17, 2019

*PureTech Health to receive up to \$26 million in upfront payments, research support, and preclinical milestones and is eligible to potentially receive more than \$200 million in milestones, in addition to royalties*

*Collaboration will initially focus on developing Boehringer Ingelheim's novel immuno-oncology product candidates*

PureTech Health plc (LSE: PRTC) ("PureTech Health"), an advanced biopharmaceutical company developing novel medicines for dysfunctions of the Brain-Immune-Gut (BIG) axis, today announced that it has entered into a research collaboration with Boehringer Ingelheim to develop novel product candidates for an undisclosed number of targets by leveraging PureTech's proprietary lymphatic targeting technology for immune modulation. Under terms of the agreement, PureTech Health will receive up to \$26 million, including upfront payments, research support, and preclinical milestones, and is eligible to receive more than \$200 million in development and sales milestones, in addition to royalties on product sales. The collaboration will initially focus on applying PureTech's lymphatic targeting technology to an immuno-oncology product candidate designated by Boehringer Ingelheim.

"We see great promise in leveraging PureTech's platform to target the lymphatic system and deliver therapeutic candidates directly to the lymph nodes responsible for priming, educating and proliferating immune cells," said Clive Wood, PhD, global head of discovery research at Boehringer Ingelheim. "The approach is a potentially powerful tool for modulating the immune system and may allow us to improve efficacy and reduce systematic toxicities through precise targeting."

The partnership leverages the potential of the proprietary lymphatic targeting platform that PureTech Health is developing through its internal R&D division. The approach harnesses the gut's lipid transport mechanisms to enable oral administration and transport of drug candidates directly through the gut-draining lymphatic vasculature, also bypassing first pass metabolism in the liver. More specifically, the therapeutic candidates are directed to the mesenteric lymph nodes, which program as many as 70 per cent of circulating adaptive immune cells. By targeting the lymphatic system directly, the technology has the potential to achieve more effective and precise immunomodulation of local tissues, while sparing the patient from the risks of extensive systemic exposure to the drug. PureTech's lymphatic targeting approach, which is based on the research of Chris Porter, PhD, Director of the Monash Institute of Pharmaceutical Sciences (MIPS) at Monash University, can potentially be applied to therapeutic molecules across a range of physiochemical properties and holds promise for the development of novel therapeutics for gastrointestinal, central nervous system, and autoimmune diseases as well as cancer.

"This collaboration signals the exciting potential of another proprietary platform from our internal R&D to enable novel immunotherapy approaches by harnessing the lymphatic system's capacity for immune cell trafficking and immunomodulation," said Daphne Zohar, co-founder and chief executive officer of PureTech Health. "We look forward to working with the excellent scientific teams at Boehringer Ingelheim to advance this important program, which has the potential to greatly expand therapeutic options for patients with cancer."

The research collaboration with Boehringer Ingelheim will focus first on using this approach to administer an immuno-oncology candidate for gastrointestinal (GI) cancers directly to the gut lymphatics. About 70 per cent of immune cells reside in lymphatic tissues associated with the GI tract, so targeting immunomodulatory agents with this approach could potentially tune both systemic and local immunity. Once the product candidates enter the development stage, Boehringer Ingelheim will assume full responsibility for development and PureTech Health will be eligible for various developmental and sales milestones in addition to royalties on product sales.

### **About PureTech's Lymphatic Targeting Platform**

PureTech's proprietary lymphatic targeting platform is designed to the body's natural lipid transport mechanisms to enable the transport of drug molecules directly into the lymphatic system when administered orally. This pathway facilitates entry into the mesenteric lymph nodes, which are crucial centres for immune cell priming, education and proliferation in the GI tract. Targeting the lymphatic vasculature enables rational design of therapeutics to modulate immunity in a tissue-specific manner and minimize systemic toxicity due to global immunosuppression. Preclinical data suggest PureTech's lymphatic targeting platform could potentially enable more efficacious and less toxic therapeutics addressing cancer and inflammatory and autoimmune diseases. This technology is based on the pioneering research of Professor Chris Porter and his team at the Monash Institute of Pharmaceutical Sciences, Monash University, who continue to collaborate with PureTech Health on the programme. All the relevant intellectual property associated with his work on this technology is exclusively licensed to PureTech and is supported by additional PureTech Health patents.

### **About PureTech Health**

PureTech Health (LSE: PRTC) is an advanced biopharmaceutical company developing BIG medicines for dysfunctions of the Brain-Immune-Gut axis. The Company has gained deep insights into the connection between these systems and the resulting role in diseases that have proven resistant to established therapeutic approaches. By harnessing this emerging field of human biology, PureTech Health is developing new categories of medicines with the potential to have great impact on people with serious diseases.

PureTech Health is advancing a rich pipeline of innovative therapies with an unbiased, non-binary, and capital efficient R&D model across its affiliates and its internal labs. PureTech's affiliates include seven clinical-stage platforms, including one product that has been cleared by the US Food and Drug Administration (FDA) and a second product candidate that has been filed with the FDA for review, and several other novel preclinical programmes. The PureTech Health pipeline includes ground-breaking platforms and therapeutic candidates that were developed in collaboration with some of the

world's leading experts.

PureTech's internal research and development is centred on tissue-selective immunomodulation for the treatment of oncology, autoimmune, and CNS-related disorders, with a near-term focus on targeting newly-discovered, foundational immunosuppressive mechanisms in oncology and novel approaches that harness the lymphatic infrastructure.

For more information, visit [www.puretechhealth.com](http://www.puretechhealth.com) or connect with us on Twitter [@puretechh](https://twitter.com/puretechh).

#### **Forward Looking Statement**

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, those risks and uncertainties described in the risk factors included in the 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.

This announcement contains inside information for the purposes of Article 7 of Regulation (EU) 596/2014.