



PureTech Health Announces Presentation of Internal Immuno-Oncology Programmes at American Association for Cancer Research (AACR) Annual Meeting

April 2, 2019

Fully-human mAb candidates represent potential first-in-class therapies with IND filing expected in 2020

Internal development programmes targeting Galectin-9 (LYT-200) and $\gamma\delta 1$ T cells (LYT-210) represent novel approaches to targeting immunosuppression in cancer

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 the presentation of two scientific posters at the 2019 American Association for Cancer Research (AACR) Annual Meeting in Atlanta, Georgia.

Joseph Bolen, PhD, chief scientific officer at PureTech Health, said: "PureTech Health has built a leading position in BIG therapeutic development through its affiliate technologies and is now capitalising on this critical mass of expertise through multiple internal development programmes that are delivering clinical candidates. We're proud to present data on these programmes at AACR, one of the premiere scientific meetings focused on cancer research. Galectin-9 and $\gamma\delta 1$ T cells represent powerful immunosuppressive mechanisms across both innate and adaptive immunity. We have moved quickly to advance development of compelling candidates that could act as both monotherapies and combination therapies against cancers that currently do not respond well to approved immunotherapies. In addition to our programmes targeting the body's immune cell trafficking highway – the lymphatic system – these immuno-oncology programmes round out an exciting pipeline of therapeutics targeting important regulators of the immune system."

The posters detail the Company's development of first-in-class, fully-human monoclonal antibodies (mAbs) targeting Galectin-9 (LYT-200) and immunosuppressive $\gamma\delta 1$ (gamma delta) T cells (LYT-210). LYT-200 and LYT-210 are unique mAbs targeting foundational, novel mechanisms of tumoral immune escape and immunosuppression in cancer, and have been tested as single agents, as well as in combination with anti-PD1 in preclinical murine and human-derived *ex vivo* models. As such, they represent novel additions to the armamentarium of immuno-oncology agents, with potential across multiple solid tumours including malignancies that have historically proved difficult to treat. The AACR posters describe their development, lead candidate characterisation, and pre-clinical efficacy models.

Galectin-9 is a master immunosuppressor that affects multiple cell types (e.g., regulatory and effector T cells, myeloid-derived suppressor cells, and macrophages) to induce and maintain a tumour-permissive microenvironment. As it can be both expressed by cancer cells and present in cancer tissue, and it can also be secreted into the circulation of cancer patients, targeting Galectin-9 can enable multiple anti-tumour effects. PureTech's anti-Galectin-9 antibody, dubbed LYT-200, is being developed for difficult-to-treat malignancies, including pancreatic, cholangiocarcinoma, and certain types of colorectal and liver cancers, which remain insufficiently responsive or resistant to currently approved checkpoint inhibitors. The research presented today details the development and comprehensive characterisation of LYT-200 and its efficacy in preclinical human-derived *ex vivo* models and a murine model. The work demonstrates efficacy to reduce tumour growth, as well as the ability of LYT-200 to reactivate human effector T cells in patient-derived tumour culture models.

Gamma Delta 1 ($\gamma\delta 1$) T cells are an immunosuppressive subset of the $\gamma\delta$ T cell family of immune cells, which are upregulated in multiple solid tumours including breast cancer, glioblastoma, melanoma, and pancreatic cancer. Notably, an abundance of circulating $\gamma\delta 1$ T cells has been associated with poor response to checkpoint therapy in melanoma patients. $\gamma\delta 1$ T cells harbour a distinct phenotype characterised by expression of the $\delta 1$ chain in the T cell receptor. Immunosuppressive $\gamma\delta 1$ T cells function to block effector T cells, restrict anti-tumoral $\gamma\delta 2$ T cell subset, hinder antigen-presenting dendritic cells, and attract tumour-associated macrophages and myeloid-derived suppressor cells to enhance immunosuppression in cancer. Targeting $\gamma\delta 1$ T cells therefore has the capacity to modulate both innate and adaptive immunity, and their distinct phenotypic and functional properties make them excellent therapeutic targets in cancer. The research presented today focuses on PureTech's leading antibody candidate aimed at depleting $\gamma\delta 1$ T cells, showing high specificity (e.g., binding to $\delta 1$ but not the $\delta 2$ chain present on cytotoxic $\gamma\delta$ T cells), excellent binding affinity to both human and non-human primate $\delta 1$ chains, as well as functional properties to increase T cell effector activity in human derived *ex vivo* models. PureTech Health believes its anti- $\delta 1$ mAb programme is the only one of its kind, and the Company is now finalising the programme's lead clinical candidate selection.

The company anticipates filing an Investigational New Drug Application (IND) for LYT-200, which targets Galectin-9, in 2020 and anticipates continuing to advance the lead clinical candidate of the $\gamma\delta 1$ programme, LYT-210, into development.

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, two products that have 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 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.