PureTech Health's Vedanta Biosciences to Present Preclinical Data on Microbiome-Derived Immuno-Oncology Candidate at Major Conference

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PureTech Health plc (LSE: PRTC) ("PureTech Health"), an advanced biopharmaceutical company developing novel medicines for dysfunctions of the Brain-Immune-Gut (BIG) Axis, is pleased to note that Vedanta Biosciences today announced data for VE800, its orally-administered, live biotherapeutic product candidate in immuno-oncology. The preclinical data showed that VE800 induced a systemic, anti-tumour immune response both as a monotherapy and in combination with checkpoint inhibitors. Additionally, the results describe a mechanism of action for VE800 as the robust interferon-gamma producing CD8+ (cytotoxic) T cell response was elicited via activation of dendritic cells. The data will be presented at the Society for Immunotherapy of Cancer's (SITC) 33rd Annual Meeting. Vedanta Biosciences expects to initiate a clinical study of VE800 in mid-2019.

Bharatt Chowrira, JD, PhD, President and Chief of Business and Strategy at PureTech Health, said: "The new data support the potential of VE800 as a unique approach to immuno-oncology – both as a monotherapy and to enhance the effects of checkpoint inhibitors. We look forward to the initiation of a clinical study next year and to the continued progress of Vedanta's pipeline."

The full text announcement from Vedanta Biosciences is as follows:

Vedanta Biosciences Announces Preclinical Data on Microbiome-Derived Immuno-Oncology Candidate

VE800 shown to induce cytotoxic T cells and a systemic immune response both as a monotherapy and in combination with checkpoint inhibitors

First detailed description of anti-tumour activity mediated by commensal bacteria that have been associated with clinical response to checkpoint inhibitors

These data to be presented at the Society for Immunotherapy of Cancer's 33rd Annual Meeting

CAMBRIDGE, Mass., Nov. 6, 2018 —Vedanta Biosciences, a clinical-stage company developing a new category of therapies for immune-mediated diseases based on rationally-defined consortia of human microbiome-derived bacteria, today announced preclinical data for VE800, the Company's orally-administered, live biotherapeutic product candidate in immuno-oncology. The study showed that VE800 elicited an anti-tumour immune response as a monotherapy and also enhanced effects of immune checkpoint inhibitors. Additionally, the results describe a mechanism of action for VE800 as the robust interferon-gamma producing CD8+ (cytotoxic) T cell response was elicited via activation of dendritic cells. The data will be presented at the Society for Immunotherapy of Cancer's (SITC) 33 rd Annual Meeting, by Dr Bruce Roberts, Chief Scientific Officer of Vedanta Biosciences on 8 November. Vedanta Biosciences expects to initiate a clinical study of VE800 in mid-2019.

"Our work shows that VE800 induces robust tumour infiltration by cytotoxic T cells - one of the strongest predictors of response to checkpoint inhibitors - and promotes suppression of tumour growth and enhanced survival in a range of cancer models," said Bruce Roberts, PhD, Chief Scientific Officer of Vedanta Biosciences. "To our knowledge, VE800 is the most advanced immuno-oncology product candidate based on a defined consortium of human microbiome-derived bacteria, a therapeutic modality that Vedanta is pioneering. With our cGMP manufacturing processes in place, we're well-positioned to take VE800 into the clinic in the coming months."

In the preclinical study, VE800 was assessed alone and in combination with various checkpoint inhibitors in colon carcinoma and melanoma tumour models. VE800 was assessed for its ability to induce CD8+ T cells, an important marker of anti-tumour response, as well for its ability to influence accumulation of tumour infiltrating lymphocytes. The study was conducted in collaboration with Dr Kenya Honda of Keio University, a leader in the microbiome field and a scientific co-founder of Vedanta Biosciences.

Data highlights include:

1. VE800 robustly promoted induction of interferon-gamma producing CD8+ T cells via activation of intestinal dendritic cells and stimulation of interferon-gamma producing CD8+ T cells in a manner dependent on the transcription factor BATF3
2. VE800 enhanced the anti-tumour activity of both anti-PD-1 and anti-CTLA4 antibodies by increasing the level of tumour infiltrating CD8+ T cells
3. VE800 also promoted systemic immune cell activation as evidenced by accumulation of CD8+ T cells in the spleen.

Unlike faecal transplants or single strain approaches to microbiome modulation, Vedanta Biosciences uses pure, clonal cell banks to produce defined collections, or consortia, of bacterial strains designed to effect durable therapeutic changes in a patient's microbiota. This bypasses the need to rely on direct sourcing of faecal donor material of inconsistent composition.

About VE800

VE800 is Vedanta Biosciences' oral immuno-oncology product candidate. It consists of a rationally-defined bacterial consortium that activates cytotoxic CD8+ T cells, a type of white blood cell that is the predominant effector in cancer immunotherapy. In preclinical studies, VE800 has been shown to enhance the ability of these T cells to infiltrate tumours, thereby promoting suppression of tumour growth and improving survival. Data also suggest that VE800 may enhance the effects of checkpoint inhibitors. Vedanta Biosciences is evaluating VE800 alone and in combination with

checkpoint inhibitors as a potential treatment for patients with advanced or metastatic cancers.

About Vedanta Biosciences

Vedanta Biosciences is a clinical-stage company developing a new category of therapies for immune-mediated diseases based on rationally-defined consortia of human microbiome-derived bacteria. Vedanta Biosciences is a leader in the microbiome field with capabilities and deep expertise to discover, develop, and manufacture live bacteria drugs. These include what is believed to be the largest collection of human microbiome-associated bacterial strains, a suite of proprietary assays to select pharmacologically potent strains, vast proprietary datasets from human interventional studies, and facilities for cGMP-compliant manufacturing of rationally-defined bacterial consortia in powder form. Vedanta Biosciences' pioneering work, in collaboration with its scientific co-founders, has led to the identification of human commensal bacteria that induce a range of immune responses – including induction of regulatory T cells, CD8+ T cells, and Th17 cells, among others. These advances have been published in leading peer-reviewed journals, including Science (multiple), Nature (multiple), Cell, and Nature Immunology. Vedanta Biosciences has harnessed these biological insights and its capabilities to generate a pipeline of programmes in infectious disease, autoimmune disease, allergy, and immuno-oncology.

Vedanta Biosciences was founded by PureTech Health (PRTC.L). Its scientific co-founders are world-renowned experts in immunology and microbiology who have pioneered the fields of innate immunity, Th17, and regulatory T cell biology, and include Dr Ruslan Medzhitov (Yale and Howard Hughes Medical Institute (HHMI)), Dr Brett Finlay (University of British Columbia and HHMI), Dr Kenya Honda (inventor of Vedanta Biosciences' lead product candidate; Keio University and RIKEN), Dr Dan Littman (New York University and HHMI), Dr Alexander Rudensky (Sloan Kettering and HHMI), and Dr Jeremiah Faith (Mount Sinai School of Medicine).

About PureTech Health

PureTech Health (LSE: PRTC) is an advanced biopharmaceutical company developing novel medicines for dysfunctions of the Brain-Immune-Gut (BIG) Axis. The Company has developed deep insights into the connection between the individual components of these systems and the resulting role in many chronic diseases, which 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 across two divisions: the Affiliates division and the Internal division. Its Affiliates division includes two product candidates that have been filed with the US Food and Drug Administration (FDA) for review and several other novel clinical and pre-clinical programmes. These affiliates are developing ground-breaking platforms and therapeutic candidates in collaboration with some of the world's leading experts.

PureTech's Internal division is advancing a pipeline fuelled by recent discoveries in lymphatics and immune cell trafficking to modulate disease in a tissue-specific manner. These programmes leverage the transport and biodistribution of various immune system components for the targeted treatment of diseases with major unmet needs, including cancers, autoimmune diseases, and neuroimmune disorders.

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