



## PureTech's Vedanta Biosciences Granted Four New US Patents Expanding Coverage for Compositions and Methods of Use for Medicines Based on Microbiome-Derived Bacterial Consortia

December 13, 2017

PureTech Health plc (LSE: PRTC), an advanced, clinical-stage biopharmaceutical company, is pleased to note that Vedanta Biosciences, an affiliate of PureTech Health, today announced that the United States Patent and Trademark Office (USPTO) has issued four new patents to Vedanta Biosciences, which broadly cover compositions of matter and methods of use for therapeutic products, including mixtures of bacterial strains and spore-forming fractions based on beneficial bacteria.

The new patent issuances broaden the coverage for several programmes in Vedanta's clinical-stage pipeline, including the lead investigational product candidate, VE303, and further strengthen Vedanta's leading intellectual property position in the microbiome field.

Bharatt Chowrira, President and Chief of Business and Strategy at PureTech Health, said: "These foundational microbiome patents add to the growing intellectual property portfolio across our PureTech Health pipeline of programmes covered by over 400 issued and pending patents in major markets."

The full text of the announcement from Vedanta Biosciences is as follows:

### **Vedanta Biosciences Granted Four New US Patents Expanding Coverage for Compositions and Methods of Use for Therapeutics Based on Microbiome-Derived Bacterial Consortia**

**CAMBRIDGE, Massachusetts, December 13, 2017** —[Vedanta Biosciences](#), an affiliate of [PureTech Health](#) (LSE: PRTC) developing a new category of therapies for immune-mediated and infectious diseases based on rationally defined consortium of human microbiome-derived bacteria, today announced that the United States Patent and Trademark Office (USPTO) has issued four new patents, US 9,801,933, US 9,808,519, US 9,827,276, and US 9,833,483. The new patents broadly cover pharmaceutical compositions including Clostridium bacterial strains and methods of use for therapeutic products, including consortia of bacterial strains and spore-forming fractions based on beneficial bacteria. The newly issued patents are exclusively licensed to Vedanta under an agreement with the University of Tokyo and provide coverage through at least 2031. These issuances further strengthen Vedanta's leading intellectual property position in the microbiome field, which includes previous issuances US 9,415,079, US 9,421,230, US 9,433,652, US 9,642,882, US 9,662,381, EP2575835, JP5592958, JP5853063, and JP6115971.

"The expansion of our intellectual property estate further establishes Vedanta's leading IP position in the microbiome field and provides further recognition of the ground-breaking work of Vedanta Biosciences co-founder Dr Kenya Honda," said Bernat Olle, PhD, Chief Executive Officer of Vedanta Biosciences. "We believe The University of Tokyo patents provide Vedanta a significant competitive advantage in the microbiome field in the development of drugs based on bacterial consortia."

The new US patent issuances broaden the coverage for several programs in Vedanta's clinical-stage pipeline, including the lead investigational product candidate, VE303, which has just entered the clinic for the treatment of recurrent *C. difficile* infections. The issuances also provide an additional layer of support for Vedanta's therapeutic candidates for the treatment of Inflammatory Bowel Disease (IBD), Food Allergy, and other autoimmune and infectious diseases.

### **About Vedanta Biosciences**

[Vedanta Biosciences](#) is pioneering development of a new category of therapies for immune-mediated and infectious diseases based on rationally defined consortia of bacteria derived from the human microbiome. An affiliate of [PureTech Health](#) (PureTech Health plc, PRTC.L), Vedanta's founding team includes a group of world-renowned experts in immunology and microbiology. Vedanta Biosciences is a leader in the microbiome field with capabilities and deep expertise to discover, develop and manufacture drugs based on live bacterial consortia. The Company's facilities include integrated manufacturing operations providing cGMP-compliant manufacturing of rationally-defined bacterial consortia in powder form. Leveraging its proprietary technology platform and the expertise of its team of scientific co-founders, Vedanta Biosciences has isolated and maintains what we believe to be the largest collection of human microbiome-associated bacterial strains and has characterised, in collaborations with leading experts, how the immune system recognises and responds to these microbes. This pioneering work 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 – as well as the characterisation of novel molecular mechanisms of microbial-host communication. 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, its proprietary library of microbiome-derived bacterial strains, as well as data from clinical translational collaborations, to generate a pipeline of programmes addressing infectious diseases, autoimmune diseases, inflammation and immune-oncology indications.

Vedanta Biosciences' scientific co-founders have pioneered the fields of innate immunity, Th17 and regulatory T cell biology, and include Dr Ruslan Medzhitov (Professor of Immunobiology at Yale), Dr Alexander Rudensky (tri-institutional Professor at the Memorial Sloan-Kettering Institute, the Rockefeller University and Cornell University), Dr Dan Littman (Professor of Molecular Immunology at NYU), Dr Brett Finlay (Professor at the University of British Columbia) and Dr Kenya Honda (Professor, Keio University School of Medicine). Vedanta is backed by Seventure, Invesco Asset Management, and Rock Springs Capital and has collaborations with leading institutions including Janssen Biotech, Inc., NYU Langone Health and its Perlmutter Cancer Center, Stanford University School of Medicine, Leiden University Medical Center, University of Tokyo, Keio University, RIKEN, and the University of South Alabama Mitchell Cancer Institute.

### **About PureTech Health**

PureTech Health (PureTech Health plc, PRTC.L) is an advanced, clinical-stage biopharmaceutical company developing novel medicines targeting serious diseases that result from dysfunctions in the nervous, immune, and gastrointestinal systems (brain-immune-gut or the "BIG" axis), which together represent the adaptive human systems. PureTech Health is at the forefront of understanding and addressing the biological processes and crosstalk associated with the BIG axis. By harnessing this emerging field of human biology, the Company is pioneering new categories of medicine with the potential to have great impact on people with serious diseases. PureTech Health is advancing a rich pipeline of innovative therapies that includes two pivotal stage programmes, multiple human proof-of-concept studies and a number of early clinical and pre-clinical programmes. PureTech's rich research and development pipeline has been advanced in collaboration with some of the world's leading scientific experts, who along with PureTech's team of biopharma pioneers, entrepreneurs and seasoned Board, identify, invent, and clinically de-risk new medicines. With this experienced team pursuing cutting edge science, PureTech Health is building the biopharma company of the future focused on improving and extending the lives of people with serious disease. 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 PureTech'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. 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 PureTech Health nor any other party intends to update or revise these forward-looking statements, whether as a result of new information, future events or otherwise.