PureTech Health Affiliate Gelesis Presents Preclinical Data Showing Pipeline Candidate Restores Gut Barrier Function

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Treatment with developmental hydrogel prevented unwanted substances from entering the circulation in mice with severe gut wall injury

Data suggest Gelesis' Gel-B (GS300) repairs the seal between intestinal epithelial cells

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 its affiliate, Gelesis, today presented preclinical research suggesting that pipeline candidate Gel-B (GS300) restored gut barrier function after damage. This finding supports the potential application of Gel-B across diseases affected by gut barrier dysfunction, such as inflammatory bowel disease (IBD), type 2 diabetes, non-alcoholic fatty liver disease (NAFLD), and non-alcoholic steatohepatitis (NASH). The research was presented at ENDO 2019, the Endocrine Society's annual meeting.

Bharatt Chowrira, JD, PhD, president and chief of business & strategy at PureTech Health, said: "Infiltration of unwanted substances between the gut and surrounding tissues can provide a basis for chronic inflammation. It is very encouraging to see a novel mechanical approach for tissue repair to block such infiltration with the potential to help treat a number of associated diseases. It is also further proof-of-principle for the Gelesis platform's ability to potentially deliver a range of differentiated candidates to improve gut health and treat a host of GI disorders beyond obesity."

The full text announcement from Gelesis is as follows:

Gelesis Presents Preclinical Data Showing Proprietary Hydrogel Restores Gut Barrier Function

Treatment with Gelesis hydrogel prevented unwanted substances from entering the circulation in mice with severe gut wall injury

Data suggest Gel-B (GS300) repairs the seal between intestinal epithelial cells

BOSTON, March 25, 2019 —Gelesis, a biotechnology company at the forefront of developing therapies based on mechanobiology to treat chronic diseases related to the gastrointestinal (GI) system, today announced compelling preclinical data suggesting that the Company's proprietary hydrogel formulation, Gel-B (GS300), restored gut barrier function after damage. The gut barrier plays a key role in blocking intestinal toxins from entering the circulation and triggering disease. Building on previous preclinical work, Gel-B was engineered to elicit the mechanical and physical properties required to optimise intestinal tissue healing. The hydrogel, which represents a pioneering advance in the emerging field of mechanobiology, is being studied in diseases affected by gut barrier dysfunction, such as inflammatory bowel disease.

The study presented at ENDO 2019, the Endocrine Society's annual meeting, assessed the effect of Gel-B on gut barrier function in mice following a severe insult to the gut wall by administering 3% dextran sodium sulfate for 5 days. Mice were randomly divided into 4 doses of Gel-B (0.5%- 4.0%), control or an active Anti-p40 mAb group. The mice treated with Gel-B had fewer epithelial barrier breaks in distal colon samples and lower infiltration of an ingested fluorescing agent into their circulation.

"These preclinical data support the ability of Gel-B to reverse increased intestinal permeability in a DSS mouse model," said Elaine Chiquette, Pharm.D., Chief Scientific Officer of Gelesis. "We are continuing to advance our understanding of how our proprietary hydrogel platform technology can mechanically influence intestinal tissue repair."

Gelesis' proprietary hydrogels are made from two naturally derived building blocks, modified cellulose cross-linked with citric acid, that create a three-dimensional matrix.

About Gelesis

Gelesis is developing a novel hydrogel platform technology to treat overweight and obesity and chronic diseases related to the GI pathway. Gelesis' proprietary approach is designed to act mechanically in the GI pathway to potentially alter the course of chronic diseases. The company's lead product candidate, Gelesis100, has been submitted to the FDA for review as a weight management aid. Additionally, Gelesis is developing its second candidate, Gelesis200, a hydrogel optimised for weight loss and glycaemic control in patients with type 2 diabetes and prediabetes. Novel hydrogel mechanotherapeutics based on the Gelesis platform technology are also being advanced through a pipeline in other GI inflammatory conditions where gut barrier and gut permeability potentially play a role, such as non-alcoholic steatohepatitis (NASH) and inflammatory bowel disease (IBD).

The Gelesis executive and advisory team includes some of the world's leading experts in obesity, materials science, chronic disease research and commercialisation. Gelesis was co-founded by PureTech Health (LSE: PRTC), a biopharmaceutical company focused on the Brain-Immune-Gut (BIG) axis. For more information, visit gelesis.com or connect with us on Twitter @GelesisInc.

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 with two product candidates that have been filed with the US Food and Drug Administration (FDA) for review and other novel pre-clinical 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.

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.