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PureTech Founded Entity Gelesis Presents Pre-Clinical Data Suggesting Proprietary Hydrogel (GS300 Prototype) Reverses the Damage to the Intestines Induced by a High Fat Diet

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Gelesis hydrogel slowed the progression of fatty liver disease even with persistent damaging effects of chronic high fat diet

Therapies exploiting the gut liver axis may offer a unique treatment option for metabolic liver disorders

PureTech Health plc (LSE: PRTC) ("PureTech" or the "Company"), a clinical-stage biotherapeutics company dedicated to discovering, developing and commercialising highly differentiated medicines for devastating diseases, is pleased to note that its Founded Entity, Gelesis, today announced the release of a poster presentation on the therapeutic findings of its Gel-B (GS300) at The Liver Meeting, the American Association for the Study of Liver Disease's (AASLD) annual conference.

The full text of the announcement from Gelesis is as follows:

Gelesis Presents Pre-Clinical Data Suggesting Proprietary Hydrogel (GS300 Prototype) Reverses the Damage to the Intestines Induced by a High Fat Diet

Gelesis hydrogel slowed the progression of fatty liver disease even with persistent damaging effects of chronic high fat diet

Therapies exploiting the gut liver axis may offer a unique treatment option for metabolic liver disorders

Boston, November 13, 2020 - Gelesis, a biotechnology company developing a novel hydrogel platform technology to treat obesity and other chronic metabolic diseases, released today a poster presentation on the therapeutic findings of its Gel-B (GS300) at The Liver Meeting, the American Association for the Study of Liver Disease's (AASLD) annual conference.

Gel-B (a prototype of GS300) is Gelesis' superabsorbent hydrogel that uses crosslinked citric acid and modified cellulose and is orally administered. Previous animal data showed that Gel-B, when administered preventatively in conjunction with a high fat diet (HFD), reduced weight gain, prevented hepatic steatosis, and improved gut barrier function. This new pre-clinical study highlights that Gel-B may also have therapeutic benefits in mice fed a high fat diet.

"These pre-clinical data add to the growing body of evidence supporting the effect of orally administered hydrogel acting as a topical therapy for the intestinal wall to prevent and reverse the damage induced by a westernised diet," said Maria Rescigno, PhD, professor at Humanitas Research Hospital in Milan and one of the study's lead investigators. "Many of the treatment options currently available do not address the gut, and they are pharmacological and many come with potential tolerability and safety issues. These data suggest that Gel-B may offer a non-pharmacological alternative and new approach to potentially treat fatty liver disease."
Chronic consumption of high fat diet can cause disruption of the gut barrier, leading to metabolic dysfunction and systemic inflammation. Nonalcoholic fatty liver disease (NAFLD) is increasingly prevalent and is the most common form of chronic liver disease in the United States, affecting about one-quarter of the population. Some individuals with NAFLD can develop nonalcoholic steatohepatitis (NASH), an aggressive form of fatty liver disease, which is marked by liver inflammation and may progress to advanced scarring (cirrhosis) and liver failure.

In **Poster Presentation (EP-16730), Gelesis hydrogel reverses high fat diet-induced intestinal alterations and slows progression of hepatic steatosis in DIO mice,** hepatic steatosis was induced by feeding mice HFD (45%) for 12 weeks prior to treatment allocation. Between weeks 12 and 24, mice were treated with either HFD alone (n=20), HFD + Gel-B 2% (n=18), or HFD + Gel-B 4% (n=18). A control group (n=21) was fed chow alone for the entire experiment. At baseline, the mice had increased body weight, larger adipocytes, fatty liver, intestinal atrophy, and impaired intestinal barrier function. After 12 weeks of Gel-B 2 or 4% treatment, body weight and adipocyte size were significantly reduced compared to mice continuously fed HFD. Gel-B treatment also prevented intestinal atrophy induced by HFD. Intestinal permeability, as measured by the amount of serum FITC-dextran (4 kDa) 4 hours after oral administration, was reduced in both Gel-B groups compared to HFD control. These data support the hypothesis that Gel-B may protect against and reverse the harmful effects of HFD and future research could explore its therapeutic benefit in the presence of hepatic steatosis and aggressive forms of fatty liver disease.

Alessandra Silvestri, PhD, of the Laboratory of Mucosal Immunology and Microbiota at Humanitas Research Hospital will provide a recorded overview of these results and will be available for virtual questions by meeting participants.

"In multiple different mice models, we consistently see the same intestinal tissue repair in response to the mechanical forces applied by the Gelesis hydrogels," said Elaine Chiquette, PharmD, Gelesis' Chief Scientific Officer. "We are excited to translate these mechanobiological therapeutic effects into upcoming clinical trials."

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 certain chronic diseases. In April 2019, Gelesis received FDA clearance for its lead product candidate, Plenity®, as an aid for weight management in overweight and obese adults with a Body Mass Index (BMI) of 25-40 kg/m^2, when used in conjunction with diet and exercise. It was also granted a CE Mark, which allows Gelesis to market Plenity in the European Economic Area. Plenity is currently available in limited release in the U.S. Additionally, Gelesis is developing additional investigational candidates such as 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 in other GI inflammatory conditions, such as non-alcoholic steatohepatitis (NASH) and functional constipation. For more information, visit gelesis.com or connect with us on Twitter @GelesisInc.

About PureTech Health
PureTech is a clinical-stage biotherapeutics company dedicated to discovering, developing and commercialising highly differentiated medicines for devastating diseases, including intractable cancers, lymphatic and gastrointestinal diseases, central nervous system disorders and inflammatory and immunological diseases, among others. The Company has created a broad and deep pipeline through the expertise of its experienced research and development team and its extensive network of scientists, clinicians and industry leaders. This pipeline, which is being advanced both internally and through PureTech's Founded Entities, is comprised of 24 products and product candidates, including two that have received US Food and Drug Administration (FDA) clearance and European marketing authorisation. All of the underlying programmes and platforms that resulted in this pipeline of product candidates were initially identified or discovered and then advanced by the PureTech team

through key validation points based on the Company's unique insights into the biology of the brain, immune and gut, or BIG, systems and the interface between those systems, referred to as the BIG Axis.

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 Gelesis' 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, our expectations regarding the potential therapeutic benefits of Gel-B (GS300) and 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.

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