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PureTech Founded Entity Gelesis Announces its Proprietary Superabsorbent Hydrogel Induced Beneficial Changes to the Gut Microbiota and Expanded Akkermansia, a Bacterial Species Associated with Gut Health and Weight Loss, in New Study

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New preclinical data presented today at the World of Microbiome Conference suggest adding superabsorbent hydrogel to a high-fat "western-like" diet prevents unfavorable changes in the communities of gut bacteria associated with diet-induced weight gain

PureTech Health plc (Nasdaq: PRTC, LSE: PRTC) ("PureTech" or the "Company"), a clinical-stage biotherapeutics company announced that its Founded Entity, Gelesis Holdings, Inc. (NYSE: GLS) ("Gelesis), released today a poster presentation at the World of Microbiome annual meeting in Vienna. The preclinical study showed administration of one of Gelesis' proprietary superabsorbent hydrogels, Gel-B, significantly shifted the composition of the microbiome to a profile correlated with better metabolic health, including improved weight and glucose control. Adding Gel-B to a high-fat diet exponentially encouraged the growth of *Akkermansia muciniphila*, a bacteria associated with thickened mucosal lining of the gut, improved gut barrier function, and lean body mass. Furthermore, benchtop studies indicated that the 3-D structure and unique properties of Gel-B is required to support the increased growth of *Akkermansia.* These data suggest that superabsorbent hydrogels may offer additional therapeutic mechanisms promoting metabolic health beyond their space occupying properties.

Gelesis' superabsorbent hydrogels are inspired by the composition and mechanical properties (elasticity or firmness) of ingested raw vegetables. They are taken by capsules with water before a meal to create a much larger volume of small, non-aggregating hydrogel pieces that act locally in the digestive system without adding any additional calories.

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

Gelesis' Proprietary Superabsorbent Hydrogel Induced Beneficial Changes to the Gut Microbiota and Expanded *Akkermansia*, a Bacterial Species Associated with Gut Health and Weight Loss, in New Study

New pre-clinical data presented today at the World of Microbiome Conference suggest adding superabsorbent hydrogel to a high-fat "western-like" diet prevents unfavorable changes in the communities of gut bacteria associated with diet-induced weight gain

BOSTON, April 29, 2022 - Gelesis (NYSE: GLS), a consumer-focused biotherapeutics company and the maker of Plenity®, released today a poster presentation at the World of Microbiome annual meeting in Vienna. The pre-clinical study showed administration of one of the company's proprietary superabsorbent hydrogels, Gel-B, significantly shifted the composition of the microbiome to a profile correlated with better metabolic health, including improved weight and glucose control. Adding Gel-B to a high-fat diet exponentially encouraged the growth of *Akkermansia muciniphila*, a bacteria associated with thickened mucosal lining of the gut, improved gut barrier function, and lean body mass. Furthermore, benchtop studies indicated that the 3-D structure and unique properties of Gel-B is required to support the increased growth of *Akkermansia.* These data suggest that superabsorbent hydrogels may offer additional therapeutic mechanisms promoting metabolic health beyond their space occupying properties.

"Obesity is a complex disease and recent research has shown that alterations of the gut microbiome may be one cause. It follows that interventions used to modify the microbiome could be important tools for the treatment of obesity," said Neil Floch, MD, a bariatric surgeon and expert on obesity treatment at Nuvance Health in Norwalk, CT. "I look forward to seeing more clinical studies on this new class of materials and their potential mechanical benefits on gut health and the microbiome."

Gelesis' superabsorbent hydrogels are inspired by the composition and mechanical properties (elasticity or firmness) of ingested raw vegetables. They are taken by capsules with water before a meal to create a much larger volume of small, non-aggregating hydrogel pieces that act locally in the digestive system without adding any additional calories.

This new study aimed to define the gut microbiota associated with observed metabolic improvement and uncover how Gel-B may be driving compositional changes to these microbiota communities. After being fed a high fat diet (45% lard) for 12 weeks, the studied groups of mice were treated with a combination high fat diet and Gel-B, or a control of high fat diet alone for an additional 12 weeks. Fecal samples were collected at study weeks 12, 16, and 24. Results showed that mice fed Gel-B treatment in addition to a high fat diet had gut microbiota changes, including:

- Restoration of the Bacteroidetes/Firmicutes ratio, which is often out of balance in patients with obesity
- Increase in Verrucomicrobia driven exclusively by *Akkermansia muciniphila*

The increased abundance of *Akkermansia muciniphila* was confirmed in benchtop studies, where results indicated that the 3-D structure of Gel-B was required for this phenomenon. Un-crosslinked modified cellulose, a linear fiber with a much lower elastic response which is used as a building block of Gel-B, did not support the growth of this species.

"We were excited to see that, along with weight loss and changes in gut permeability, we saw beneficial changes in the gut microbiota," said Maria Rescigno, PhD, Group Leader of the Mucosal Immunology and Microbiota Unit at Humanitas University in Milan, one of the lead investigators on the study. "Most pronounced was an increase in *Akkermansia muciniphila*, which is known to be associated with metabolic health."

An interview with study co-authors Alessandra Silvestri, PhD and Antonio Gil-Gomez, PhD is available at https://youtu.be/3YnzduqRyq8.

In previous studies, administration of one of these hydrogels, Gel-B, in addition to a high-fat diet, blunted weight gain, reversed gut atrophy, improved metabolic parameters, and restored gut barrier function.

About Gelesis

Gelesis Holdings Inc. (NYSE: GLS) ("Gelesis") is a consumer-centered biotherapeutics company and the maker of Plenity®, which is inspired by nature and FDA cleared to aid in weight management. Our first-of-their-kind non-systemic superabsorbent hydrogels are made entirely from naturally derived building blocks. They are inspired by the composition and mechanical properties of raw vegetables, taken by capsule, and act locally in the digestive system, so people feel satisfied with smaller portions. Our portfolio includes Plenity® and potential therapies in development for patients with Type 2 Diabetes, Non-alcoholic Fatty Liver Disease (NAFLD)/Non-alcoholic Steatohepatitis (NASH), and Functional Constipation. For more information, visit gelesis.com, or connect with us on Twitter @GelesisInc.

Plenity® is indicated to aid weight management in adults with excess weight or obesity, a Body Mass Index (BMI) of 25-40 kg/m², when used in conjunction with diet and exercise.

Important Safety Information about Plenity

- Patients who are pregnant or are allergic to cellulose, citric acid, sodium stearyl fumarate, gelatin, or titanium dioxide should not take Plenity.
- To avoid impact on the absorption of medications:
    - For all medications that should be taken with food, take them after starting a meal.
    - For all medications that should be taken without food (on an empty stomach), continue taking on an empty stomach or as recommended by your physician.
- The overall incidence of side effects with Plenity was no different than placebo. The most common side effects were diarrhea, distended abdomen, infrequent bowel movements, and flatulence.
- Contact a doctor right away if problems occur. If you have a severe allergic reaction, severe stomach pain, or severe diarrhea, stop using Plenity until you can speak to your doctor.

Rx Only. For the safe and proper use of Plenity or more information, talk to a healthcare professional, read the Patient Instructions for Use, or call 1-844-PLENITY.

Forward-Looking Statements

Certain statements, estimates, targets and projections in this press release may constitute "forward-looking statements" within the meaning of the federal securities laws. The words "anticipate," "believe," continue," "could," "estimate," "expect," "intend," "may," "might," "plan," "possible," "potential," "predict," "project," "should," "strive," "would" and similar expressions may identify forward-looking statements, but the absence of these words does not mean that statement is not forward looking. Forward-looking statements are predictions, projections and other statements about future events that are based on current expectations and assumptions and, as a result, are subject to risks and uncertainties. Forward-looking statements include, but are not limited to, statements regarding our or our management team's expectations, hopes, beliefs, intentions or strategies regarding the future, including those relating to Gelesis' business combination with Capstar Special Purpose Acquisition Corp. ("Capstar") and its expected benefits, Gelesis' performance following the business combination, the competitive environment in which Gelesis operates, the expected future operating and financial performance and market opportunities of Gelesis and statements regarding Gelesis' expectations, hopes, beliefs, intentions or strategies regarding the future. In addition, any statements that refer to projections, forecasts, or other characterizations of future events or circumstances, including any underlying assumptions, are forward-looking statements. Forward-looking statements speak only as of the date they are made. Readers are cautioned not to put undue reliance on forward-looking statements, and Gelesis assumes no obligation and does not intend to update or revise these forward-looking statements, whether as a result of new information, future events, or otherwise. Gelesis gives no assurance that any expectations set forth in this press release will be achieved. Various risks and uncertainties (some of which are beyond our control) or other factors could cause actual future results, performance or events to differ materially from those described herein. Some of the factors that may impact future results and performance may include, without limitation: (i) the size, demand and growth potential of the markets for Plenity® and Gelesis' other product candidates and Gelesis' ability to serve those markets; (ii) the degree of market acceptance and adoption of Gelesis' products; (iii) Gelesis' ability to develop innovative products and compete with other companies engaged in the weight loss industry; (iv) Gelesis' ability to finance and complete successfully the commercial launch of Plenity® and its growth plans, including new possible indications and the clinical data from ongoing and future studies about liver and other diseases; (v) failure to realize the anticipated benefits of the business combination, including as a result of a delay or difficulty in integrating the businesses of Capstar and Gelesis; (vi) the ability of Gelesis to issue equity or equity-linked securities or obtain debt financing in the future; (vii) the outcome of any legal proceedings instituted against Capstar, Gelesis, or others in connection with the business combination; (viii) the ability of Gelesis to maintain its listing on the New York Stock Exchange; (ix) the risk that the business combination disrupts current plans and operations of Gelesis as a result of Gelesis being a publicly listed issuer; (x) the regulatory pathway for Gelesis' products and responses from regulators, including the FDA and similar regulators outside of the United States; (xi) the ability of Gelesis to grow and manage growth profitably, maintain relationships with customers and suppliers and retain Gelesis' management and key employees; (xii) costs related to the business combination, including costs associated with the Gelesis being a publicly listed issuer; (xiii) changes in applicable laws or regulations; (xiv) the possibility that Gelesis may be adversely affected by other economic, business, regulatory and/or competitive factors; (xv) Gelesis' estimates of expenses and profitability; (xvi) ongoing regulatory requirements, (xvii) any competing products or technologies that may emerge, (xviii) the volatility of the telehealth market in general, or insufficient patient demand; (xix) the ability of Gelesis to defend its intellectual property and satisfy regulatory requirements; (xx) the impact of the COVID 19 pandemic on Gelesis' business; (xxi) the limited operating history of Gelesis; (xxii) the potential impact of inflation on our operating expenses and costs of goods; and (xxiii) other important factors discussed in the "Risk Factors" section of Gelesis's most recent Annual Report on Form 10-K filed on April 1, 2022, and in other filings that Gelesis makes with the Securities and Exchange Commission. These filings address other important risks and uncertainties that could cause actual results and events to differ materially from those contained in the forward-looking statements.

About PureTech Health

PureTech is a clinical-stage biotherapeutics company dedicated to discovering, developing and commercializing highly differentiated medicines for devastating diseases, including inflammatory, fibrotic and immunological conditions, intractable cancers, lymphatic and gastrointestinal diseases and neurological and neuropsychological disorders, 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 27 therapeutics and therapeutic candidates, including two that have received both U.S. FDA clearance and European

marketing authorization, as of the date of PureTech's most recently filed Annual Report and corresponding Form 6-K. All of the underlying programs and platforms that resulted in this pipeline of therapeutic candidates were initially identified or discovered and then advanced by the PureTech team through key validation points based on unique insights in immunology and drug development.

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

Cautionary Note Regarding Forward-Looking Statements

This press release contains statements that are or may be forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements contained in this press release that do not relate to matters of historical fact should be considered forward-looking statements, including without limitation statements that relate to the business combination agreement between Gelesis and Capstar Special Purpose Acquisition Corp. (NYSE: CPSR) or matters related thereto, Gelesis' future prospects, development plans, and strategies. The forward-looking statements are based on current expectations and are subject to known and unknown risks, uncertainties and other important factors that could cause actual results, performance and achievements to differ materially from current expectations, including, but not limited to, those risks, uncertainties and other important factors described under the caption "Risk Factors" in our Annual Report on Form 20-F for the year ended December 31, 2021 filed with the SEC and in our other regulatory filings. 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, we disclaim any obligation to update or revise these forward-looking statements, whether as a result of new information, future events or otherwise.

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