



PureTech is Pleased to Note Publication in Nature's Scientific Reports Featuring the Gelesis Foundational Biomimetic Platform for Treating Obesity and Conditions Related to Diet-Induced Gut Damage

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PureTech is Pleased to Note Publication in Nature's Scientific Reports Featuring the Gelesis Foundational Biomimetic Platform for Treating Obesity and Conditions Related to Diet-Induced Gut Damage

New paper in important scientific journal describes the first superabsorbent hydrogel technology made from naturally derived building blocks designed to address obesity and gut related conditions by emulating compositional and mechanical properties of raw vegetables

The newly published data showed that specific mechanical properties (elastic component/firmness) of Gelesis hydrogels were beneficial in protecting gut tissue from toxin damage in an ex-vivo model

First product based on this platform, Plenity[®], is now FDA cleared and available by prescription to aid in weight management

Gelesis' pipeline includes several other therapeutic product candidates in advanced clinical development to potentially treat a range of indications including diet-induced gut damage

[PureTech Health plc](#) (Nasdaq: PRTC, LSE: PRTC) ("PureTech" or the "Company"), a clinical-stage biotherapeutics company, noted today that its Founded Entity, Gelesis, Inc. ("Gelesis") announced today a publication in Nature's [Scientific Reports](#) describing the genesis of the underlying technology and engineering process for Gelesis' non-systemic superabsorbent hydrogels. These new materials were designed to replicate compositional and mechanical properties of raw vegetables, and the paper describes their therapeutic approach for weight management as well as possible future solutions for other gut-related conditions.

Vegetable consumption is a fundamental part of many dietary interventions. Vegetables occupy volume in the stomach, reducing the caloric density of a meal, and their features are known to enhance satiety. Yet in the treatment of obesity and other related conditions like diabetes or gut-related diseases, nutritional and behavioral modifications are often difficult to implement and maintain. Gelesis thus engineered a novel, cellulose-based superabsorbent hydrogel platform designed to mimic many of the properties of raw vegetables. While not a replacement for vegetables as it does not provide any calories or micronutrients, the superabsorbent hydrogels were designed to help you eat less so you can lose weight.

The research examined the composition and mechanical properties of the novel superabsorbent hydrogels compared to those of raw vegetables and functional fibers. The superabsorbent hydrogels demonstrated elasticity at orders of magnitude above the tested functional fibers and, as intended, similar to the tested raw vegetables. Notably, those hydrogels with elasticity levels similar to raw vegetables showed benefits in preserving and regulating gut tissue in an *ex-vivo* organ culture model.

"To my knowledge, this is the first and only superabsorbent hydrogel technology that is made only from food-derived building blocks. This was quite an engineering feat in the biomaterials world," said Dr. Robert Langer, one of only 12 Institute Professors at the Massachusetts Institute of Technology and the most cited engineer in history. Dr Langer is also a co-founder of dozens of biotechnology companies including PureTech Health and Moderna. "It is exciting to see

how this terrific work has already led to products that could potentially improve the lives of millions of people," added Dr. Langer.

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

Nature's *Scientific Reports* Features Gelesis' Novel and Foundational Biomimetic Platform for Treating Obesity and Conditions Related to Diet-Induced Gut Damage

New paper describes the first superabsorbent hydrogel technology made from naturally derived building blocks designed to address obesity and gut related conditions by emulating compositional and mechanical properties of raw vegetables

The newly published data showed that specific mechanical properties (elastic component/firmness) of Gelesis hydrogels were beneficial in protecting gut tissue from toxin damage in an ex-vivo model

First product based on this platform, Plenity[®], is now FDA cleared and available by prescription to aid in weight management

Gelesis' pipeline includes several other therapeutic product candidates in advanced clinical development to potentially treat a range of indications including diet-induced gut damage

BOSTON, November 1, 2021 - Gelesis, a consumer-focused biotherapeutics company and the maker of Plenity[®], announced today a publication in Nature's *Scientific Reports* describing the genesis of the underlying technology and engineering process for Gelesis' non-systemic superabsorbent hydrogels. These new materials were designed to replicate compositional and mechanical properties of raw vegetables, and the paper describes their therapeutic approach for weight management as well as possible future solutions for other gut-related conditions.

"To my knowledge, this is the first and only superabsorbent hydrogel technology that is made only from food-derived building blocks. This was quite an engineering feat in the biomaterials world," said Dr. Robert Langer, one of only 12 Institute Professors at the Massachusetts Institute of Technology and the most cited engineer in history. Dr Langer is also a co-founder of dozens of biotechnology companies including PureTech Health (co-founder of Gelesis) and Moderna. "It is exciting to see how this terrific work has already led to products that could potentially improve the lives of millions of people," added Dr. Langer.

Vegetable consumption is a fundamental part of many dietary interventions. Vegetables occupy volume in the stomach, reducing the caloric density of a meal, and their features are known to enhance satiety. Yet in the treatment of obesity and other related conditions like diabetes or gut-related diseases, nutritional and behavioral modifications are often difficult to implement and maintain. Gelesis thus engineered a novel, cellulose-based superabsorbent hydrogel platform designed to mimic many of the properties of raw vegetables. While not a replacement for vegetables as it does not provide any calories or micronutrients, the superabsorbent hydrogels were designed to help you eat less so you can lose weight.

"We wanted to create a large volume that would mix with meals in the stomach, without adding calories, like eating a big salad." said Dr. Alessandro Sannino, inventor and lead scientist for Gelesis and Professor of Polymer Science and Technology, Deputy Rector and the Director of the Bioslabs at the University of Salento. "Clearly a new superabsorbent material was needed to allow for the administration in a convenient fashion, using only a small number of capsules. We also wanted to emulate the properties of a large amount of ingested raw vegetables since the goal was to target what we believe is one of the root causes of the obesity pandemic, which is the modern Western Diet, and how it affects us."

The research examined the composition and mechanical properties of the novel superabsorbent hydrogels compared to those of raw vegetables and functional fibers. The superabsorbent hydrogels demonstrated elasticity at orders of magnitude above the tested functional fibers and, as intended, similar to the tested raw vegetables. Notably, those hydrogels with elasticity levels similar to raw vegetables showed benefits in preserving and regulating gut tissue in an *ex-vivo* organ culture model. The paper can be read [here](#).

"We were surprised to learn how important the elasticity level of the tested hydrogels was on the integrity of the gut tissue, in our *ex-vivo* model. We used to think about nutritional fibers in terms of their composition and solubility, and we didn't appreciate the importance of their mechanical properties. We learned that raw vegetables are exactly in the sweet spot of the gut tissue in our model," said Dr. Maria Rescigno, Deputy Rector and Group Leader Mucosal Immunology and Microbiota Unit - Humanitas University. "Our data could open a new direction of research on tissue material mechanical interactions, and the highly tunable and biocompatible Gelesis hydrogels are excellent candidates to explore new mechanotransduction based therapeutic approaches."

Gelesis' first commercial product, Plenity, contains one of these superabsorbent hydrogels. Plenity is designed to help

people feel satisfied with smaller portions so they can manage their weight. It is FDA-cleared to aid in weight management in adults with excess weight or obesity, Body Mass Index (BMI) of 25 to 40 kg/m², when used in conjunction with diet and exercise. It is taken orally as three capsules with 16 oz. of water twice a day, 20 minutes before lunch and dinner. Gelesis has also received regulatory approval to market Plenity in the European Economic Area. Further indications, related to metabolic diseases and gut health, are being explored, utilizing several hydrogel candidates from this platform.

About Gelesis

Gelesis is a consumer-centered biotherapeutics company advancing a novel category of treatments for weight management and gut related chronic diseases. Our non-systemic superabsorbent hydrogels are the first and only made entirely from naturally derived building blocks, and they are inspired by the composition (i.e., water & cellulose) and mechanical properties (e.g., elasticity or firmness) of raw vegetables. Designed for convenience, they are administered in capsules to create a much larger volume of small, non-aggregating hydrogel pieces that mix with meals in the stomach, and act locally in the digestive system. Our portfolio includes Plenity[®], an FDA-cleared product to aid in weight management, as well as potential therapies in development for Type 2 Diabetes, Non-alcoholic Fatty Liver Disease (NAFLD)/Non-alcoholic Steatohepatitis (NASH), and Functional Constipation. In July 2021, we announced with Capstar Special Purpose Acquisition Corp. (NYSE: CPSR) that we have entered into a definitive business combination agreement. Upon completion of the transaction, the combined company's securities are expected to be traded on the New York Stock Exchange under the symbol "GLS."

For more information, visit gelesis.com, or connect with us on Twitter @GelesisInc.

About Plenity

Plenity is designed to help people feel satisfied with smaller portions so they can manage their weight. It is FDA-cleared to aid in weight management in adults with excess weight or obesity, Body Mass Index (BMI) of 25 to 40 kg/m², when used in conjunction with diet and exercise. It is taken orally as three capsules with 16 oz. of water twice a day, 20 minutes before lunch and dinner. If a dose is missed it can be taken with the meal or immediately following the meal. Plenity is not a drug, non-systemic, and not habit forming. It uses a novel biomimetic approach inspired by the composition and mechanical properties of vegetables.

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.

Additional Information and Where to Find It

In July, Gelesis entered into a business combination agreement with Capstar Special Purpose Acquisition Corp. (NYSE: CPSR) ("Capstar"), a special purpose acquisition company.

Capstar has filed a Registration Statement on Form S-4 with the SEC, which includes a proxy statement/prospectus, that will be both the proxy statement to be distributed to Capstar shareholders in connection with its solicitation of proxies for the vote by Capstar shareholders with respect to the proposed business combination and other matters as may be described in the Registration Statement, as well as the prospectus relating to the issuance of certain securities to be issued in the proposed business combination. After the Registration Statement is declared effective, the proxy statement/prospectus and other relevant documents will be sent to Capstar and Gelesis shareholders. Capstar also will file other documents regarding the proposed transaction with the SEC. This press release does not contain all the information that should be considered concerning the proposed business combination and is not intended to form the

basis of any investment decision or any other decision in respect of the proposed business combination. Before making any voting decision, Capstar's shareholders and other interested persons are advised to read, when available, the preliminary proxy statement/prospectus included in the Registration Statement, the amendments thereto and the definitive proxy statement/prospectus and all other relevant documents filed or that will be filed with the SEC in connection with the proposed transaction as they become available because they will contain important information about Gelesis, Capstar and the proposed transaction.

When available, the definitive proxy statement/prospectus and other relevant materials for the proposed business combination will be mailed to shareholders of Capstar as of the record date established for voting on the proposed business combination. Investors and security holders will also be able to obtain free copies of the Registration Statement, the proxy statement/prospectus and all other relevant documents filed or that will be filed with the SEC by Capstar, without charge, once available, through the website maintained by the SEC at www.sec.gov. The documents filed by Capstar with the SEC also may be obtained free of charge at Capstar's website at www.capstarspac.com, or by written request to: Capstar Special Purpose Acquisition Corp., 405 West 14th Street, Austin, TX 78701, Attention: R. Steven Hicks, Chief Executive Officer, (512) 340-7800.

Participants in the Solicitation

Capstar and its directors and executive officers may be deemed participants in the solicitation of proxies from Capstar's shareholders with respect to the proposed business combination. The names of those directors and executive officers and a description of their interests in Capstar is contained in Capstar's final prospectus dated July 6, 2020 relating to its initial public offering and in subsequent filings with the SEC, which are available free of charge at the SEC's web site at www.sec.gov. To the extent such holdings of Capstar's securities may have changed since that time, such changes have been or will be reflected on Statements of Changes in Beneficial Ownership on Form 4 filed with the SEC. Additional information regarding the interests of such participants will be contained in the proxy statement/prospectus for the proposed business combination when available.

Gelesis and its directors and executive officers may also be deemed to be participants in the solicitation of proxies from the shareholders of Capstar in connection with the proposed business combination. A list of the names of such directors and executive officers and information regarding their interests in the proposed business combination will be included in the proxy statement/prospectus for the proposed business combination when available.

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 the satisfaction of closing conditions to the proposed business combination and the expected timing of the completion of the proposed business combination, the benefits of the proposed 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' and Capstar's 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 and Capstar assume no obligation and do not intend to update or revise these forward-looking statements, whether as a result of new information, future events, or otherwise. Gelesis and Capstar give no assurance that any expectations set forth in this press release will be achieved. Various 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[®], Gelesis' other product candidates and its 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 complete successfully the full 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) the inability of the parties to successfully or timely consummate the proposed business combination, including the risk that any required regulatory approvals are not obtained, are delayed or are subject to unanticipated conditions that could adversely affect the combined company or the expected benefits of the business combination or that the approval of the shareholders of Capstar is not obtained; (vi) 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; (vii) the amount of redemption requests made by Capstar shareholders; (viii) the ability of Capstar or the combined company to issue equity or equity-linked securities or obtain debt financing in connection with the proposed business combination or in the future; (ix) the outcome of any legal proceedings that may be instituted against Capstar, Gelesis, the combined company or others following the announcement of the proposed business combination and any definitive agreements with respect thereto; (x) the ability to meet stock exchange listing standards at or following the consummation of the proposed business combination; (xi) the risk that the proposed business combination disrupts current plans and operations of Gelesis as a result of the announcement and consummation of the proposed business combination, and as a result of the post-transaction company being a publicly listed issuer; (xii) the regulatory pathway for Gelesis' products and product candidates and responses from regulators, including the FDA and similar regulators outside of the United States, (xiii) the ability of the combined company to grow and manage growth profitably, maintain relationships with customers and suppliers and retain Gelesis' management and key employees; (xiv) costs related to the proposed business combination, including costs associated with the post-transaction company being a publicly listed issuer; (xv) changes in applicable laws or regulations; (xvi) the possibility that Gelesis or the combined company may be adversely affected by other economic, business, regulatory and/or competitive factors; (xvii) Gelesis' estimates of expenses and profitability; (xviii) ongoing regulatory requirements, (xix) any competing products or technologies that may emerge, (xx) the volatility of the telehealth market in general, or insufficient patient demand; (xxi) the ability of Gelesis to defend its intellectual property and satisfy regulatory requirements; (xxii) the impact of the COVID-19 pandemic on Gelesis' business; (xxiii) the limited operating history of Gelesis; and (xxiv) those factors discussed in Capstar's final prospectus dated July 6, 2020 and Annual Report on Form 10-K for the fiscal year ended December 31, 2020 and the Registration Statement, in each case, under the heading "Risk Factors", and other documents of Capstar filed, or to be filed, with the SEC, including the proxy statement/prospectus included in the Registration Statement filed by Capstar with the SEC. 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.

Non-Solicitation

This press release is not a proxy statement or solicitation of a proxy, consent or authorization with respect to any securities or in respect of the proposed business combination and shall not constitute an offer to sell or a solicitation of an offer to buy the securities of Capstar, Gelesis or the combined company, nor shall there be any sale of any such securities in any state or jurisdiction in which such offer, solicitation, or sale would be unlawful prior to registration or qualification under the securities laws of such state or jurisdiction. No offer of securities shall be made except by means of a prospectus meeting the requirements of the Securities Act of 1933, as amended.

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 25 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 Half Year 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 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.

Cautionary Note Regarding Forward-Looking Statements

This press release contains 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, 2020 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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