



PureTech Launches “Alivio Therapeutics” and Advances Novel Approach for Treating Inflammatory Disease

Proprietary technology licensed from MIT and Brigham and Women’s Hospital is a platform to enable new treatments

Boston, Massachusetts, May 10, 2016 – [PureTech Health](#) plc (“PureTech,” LSE: PRTC), a cross-disciplinary healthcare company tackling fundamental healthcare needs, today announces the launch of Alivio Therapeutics, which is developing a novel technology for the targeted treatment of inflammatory disorders. The technology is based on an innovative hydrogel material that is designed to adhere to and deliver drugs to inflamed tissue based on the degree of inflammation (e.g., more drug is released at site with greater inflammation). This approach may help overcome major technical challenges in the field, enabling new therapies that have the potential to address multiple acute and chronic inflammatory disorders. The technology was jointly developed by Jeff Karp, Ph.D., Alivio co-founder and Associate Professor at Brigham and Women’s Hospital (BWH), Harvard Medical School and Alivio co-founder and PureTech Health Non-Executive Director and Scientific Advisory Board member, Robert Langer, Sc.D., David H. Koch Institute Professor at the Massachusetts Institute of Technology (MIT).

“There are dozens of diseases where inflammation plays a central role, and patients and their doctors are looking for better, longer-lasting treatments that offer relief,” said Michael B. Brenner, M.D., Alivio Scientific Advisory Board Member and Chief of the Division of Rheumatology, Immunology and Allergy, BWH. “We are hopeful that the development of new technologies for delivering and sustaining treatment to inflamed tissue will allow us to manage chronic and acute inflammation with more precision and control.”

Current therapeutic options, such as systemic steroids and immunosuppression, can fail to adequately control disease and may have significant side effects. Furthermore, targeting newly discovered mechanisms of inflammation has historically been difficult due to off-target effects and toxicity. Alivio seeks to overcome these limitations through a novel “smart adhere and release” drug delivery system. This proprietary technology is designed to adhere to inflamed tissue and deliver anti-inflammatory medication based on the levels of inflammation in that tissue. This has the potential to maximize treatment efficacy while minimizing the risks associated with drug exposure to healthy tissues and may enable new, disease-modifying drugs. The technology has been tested in multiple animal models and published in top peer-reviewed journals, including twice in the American Association for the Advancement of Science’s Journal, *Science Translational Medicine*. The technology is versatile and is designed to accommodate payloads including small molecules and biologics, and has been the subject of multiple patent filings.

“What differentiates this technology is its potential to safely adhere to inflamed tissue while controlling drug release based on the amount of inflammation,” said Dr. Robert Langer. “These unique properties hold promise to change the way inflammatory disease is treated in a variety of indications.”

Alivio was co-founded by PureTech Health and a group of the world’s leading experts in biomaterials and immunology. The company’s founding team and advisors include:

- [Jeff Karp, Ph.D.](#) – Alivio Co-Founder and Associate Professor at BWH, Harvard Medical School; Principal Faculty at the Harvard Stem Cell Institute; affiliate faculty at the Broad Institute and at the Harvard-MIT Division of Health Sciences and Technology; Principal Investigator [Karp Lab](#);

published 100 peer-reviewed papers; has 65 issued or pending patents; recognized by *The Boston Business Journal* as a Champion in Healthcare Innovation and by MIT's *Technology Review Magazine* (TR35) as one of the top innovators in the world.

- [Robert Langer, Sc.D.](#) – Alivio Co-Founder and Member of the Alivio Board of Directors and Co-Founder and Non-Executive Director at PureTech Health; member of PureTech's Scientific Advisory Board; David H. Koch Institute Professor at MIT; previously served as a member and Chair of the United States (U.S.) Food and Drug Administration's SCIENCE Board; has over 1,100 patents worldwide that have been licensed or sublicensed to over 300 pharmaceutical, chemical, biotechnology and medical device companies and over 1,350 publications in peer-reviewed journals.
- [Michael B. Brenner, M.D.](#) – Alivio Scientific Advisory Board Member and Theodore B. Bayles Professor of Medicine at Harvard Medical School; Chief of the Division of Rheumatology, Immunology and Allergy at BWH; made seminal discoveries in the field of antigen presentation and elucidated key mechanisms of disease in arthritis; was the scientific co-founder of Adheron Therapeutics (acquired by Roche); was elected member of the U.S. National Academy of Science; published more than 200 peer-reviewed papers.
- [Ivana Magovcevic-Liebisch, Ph.D., J.D.](#) – Director, Alivio Board of Directors and Senior Vice President and Head of Global Business Development at Teva Pharmaceuticals; responsible for the execution of transactions identified by Teva's Research and Development, Global Franchises and U.S. Specialty teams, including the licensing of commercial products, drug candidates and technologies; formerly Executive Vice President and Chief Operating Officer of Dyax Corporation which was acquired by Shire Pharmaceuticals for ~\$5.9 billion; formerly Director of Intellectual Property and Patent Counsel for Transkaryotic Therapies, Inc.; Applied Genetic Technologies Corporation Board member.
- [Ulrich H. von Andrian, M.D., Ph.D.](#) – Alivio Scientific Advisory Board Member and Mallinckrodt Professor of Immunopathology at Harvard Medical School; pioneered microscopy techniques that shaped our current understanding of how immune cells target and adhere to inflamed tissue; has published more than 200 peer-reviewed papers.
- [Ralph Weissleder, M.D., Ph.D.](#) – Alivio Scientific Advisory Board Member and Thrall Professor of Radiology and Systems Biology at Harvard Medical School; Director of the Center for Systems Biology at Massachusetts General Hospital; pioneered the clinical translation of various nanomaterials and imaging tools; has published more than 800 peer-reviewed papers; winner of the J. Taylor International Prize in Medicine; winner of the Society for Molecular Imaging Lifetime Achievement Award; member of the U.S. National Academy of Medicine, the American Academy of Arts and Sciences and the German National Academy of Sciences (Leopoldina).

"PureTech is excited to be advancing this important technology, invented by Jeff Karp and Bob Langer, and to be working with our extended team of experts to launch Alivio Therapeutics," said Daphne Zohar, Co-Founder and Chief Executive Officer of PureTech Health. "There is a tremendous unmet need in inflammatory disease, so we look forward to progressing this platform, which has the potential to deliver drugs to inflammation in a new and meaningful way."

About Alivio

Alivio Therapeutics is developing a novel technology for the targeted treatment of chronic and acute inflammatory disorders. Alivio is advancing its proprietary hydrogel technology, which is designed to adhere to inflamed tissue and delivers medication based on the levels of inflammation, potentially enabling improved properties while minimizing exposure to healthy tissue and other systemic side effects. Founded by PureTech Health along with several of the world's leading experts in biomaterials and

immunology, Alivio seeks to provide a solution to the dozens of conditions where inflammation is a central part of the underlying disease pathology, but targeted and effective treatment options are lacking.

PureTech Health plc (PRTC.L) owns approximately 92% of the company on a diluted basis as of December 31, 2015. This calculation includes issued and outstanding shares as well as options to purchase shares and written commitments to issue shares or options, but excludes unallocated shares authorized to be issued pursuant to equity incentive plans.

About PureTech Health

[PureTech Health](#) (PureTech Health plc, PRTC.L) is a cross-disciplinary healthcare company developing innovative products that could improve the lives of billions of patients. PureTech is focused on areas of growing scientific and technical insights that it believes are at an important inflection point, including the central nervous, gastro-intestinal and immune systems, and the interactions and signaling between them. PureTech has a pipeline of more than 30 programs and has approximately 20 clinical studies across its pipeline, targeting multi-billion dollar market opportunities. PureTech's advanced programs include five with human proof-of-concept and multiple with pivotal or registration study readouts in the next two years. PureTech has over 220 patents and patent applications. PureTech's leading team and board, along with an advisory network of more than 60 expert founder-scientists and advisors across multiple disciplines, gives PureTech access to potentially ground-breaking science and technological innovation. With healthcare undergoing major transformation, PureTech believes it is well positioned to develop and launch medicines for the 21st century. For more information, visit www.puretechhealth.com and connect with us on [Twitter](#).

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.

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