PureTech's Alivio Therapeutics Enters into Partnership with Purdue Pharma LP to Advance ALV-107, A Non-Opioid Product Candidate for Interstitial Cystitis/Bladder Pain Syndrome

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Alivio to receive up to $14.75 million in upfront and near-term license exercise payments and is eligible to receive royalties on product sales and over $260 million in research and development milestones

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 Purdue Pharma LP ("Purdue") and Alivio Therapeutics, Inc., an affiliate of PureTech Health, today announced that they have entered into a partnership to advance Alivio's product candidate ALV-107, a non-opioid treatment being developed for interstitial cystitis/bladder pain syndrome (IC/BPS), through clinical development. Under the terms of the agreement, Alivio will receive up to $14.75 million in upfront and near-term license exercise payments and is eligible to receive royalties on product sales and over $260 million in research and development milestones. Purdue also has an option to collaborate on a limited number of additional compounds utilising Alivio's inflammation-targeting technology, as well as an option to invest in Alivio's next equity financing.

Bharatt Chowrira, JD, PhD, President and Chief of Business and Strategy at PureTech Health, said: "We are pleased to advance ALV-107 as a potential non-opioid treatment option for interstitial cystitis/bladder pain syndrome (IC/BPS). This programme reflects PureTech's ongoing commitment to addressing pain through novel, non-opioid approaches. Our other efforts include the first-in-class oral small molecule programme KarXT, being advanced by our affiliate Karuna Pharmaceuticals for a range of pain indications, in addition to treating psychosis and cognition. The Alivio platform technology also has broad potential to address a range of inflammatory conditions beyond pain, which Alivio will continue to evaluate as part of Alivio's internal R&D efforts."

The full text announcement from Alivio and Purdue Pharma LP is as follows:

Purdue Pharma L.P. and Alivio Therapeutics Enter into Partnership to Advance ALV-107, a Non-Opioid Interstitial Cystitis/Bladder Pain Syndrome Treatment

Alivio to receive up to $14.75 million in upfront and near-term license exercise payments and is eligible to receive royalties on product sales and over $260 million in research and development milestones

STAMFORD, Conn. and BOSTON, Mass Jan 28, 2019 —Purdue Pharma L.P. ("Purdue") and Alivio Therapeutics today announced that they have entered into a partnership to advance one of Alivio's product candidates through clinical development with an option exercisable by Purdue to collaborate on a limited number of additional compounds utilising Alivio's inflammation-targeting technology. ALV-107 is a non-opioid treatment being developed for interstitial cystitis/bladder pain syndrome (IC/BPS).

Alivio will receive up to $14.75 million in upfront and near-term license exercise payments and is eligible to receive royalties on product sales and over $260 million in research and development milestones. Purdue also has an option to invest in Alivio's next equity financing.

"This collaboration with Alivio is an important milestone in our continued pursuit of non-opioid treatments for pain and represents yet another step to further diversify our portfolio," said Craig Landau M.D., President and CEO of Purdue Pharma LP. "We are impressed with Alivio's innovative platform technology as we focus on addressing patient needs – especially in areas where there are few efficacious treatment options."

Alivio's inflammation-targeting technology is designed to enable therapeutics such as small molecules, biologics and nucleic acids to act exclusively at sites of inflammation based on the degree of inflammation in the tissue, while sparing healthy tissue. This approach is being evaluated by Alivio internally across a variety of inflammatory diseases, including IC/BPS, pouchitis, and inflammatory bowel disease (IBD).

"We are delighted to enter into this partnership to advance ALV-107 for the potential treatment of interstitial cystitis/bladder pain syndrome. Alivio's non-opioid approach could provide a novel treatment option for a disease where there is a tremendous unmet need," said Eric Elenko, PhD, PureTech's Chief Innovation Officer and a Co-founder of Alivio Therapeutics. "The Alivio platform technology is designed to address a range of inflammatory conditions, and we are rapidly progressing its potential application across pouchitis and inflammatory bowel disease as part of our internal R&D."

The ALV-107 programme recently received a $3.3 million U.S. Department of Defense (DoD) Technology/Therapeutic Development Award. The funds are directed to support Alivio's preclinical research and development activities, including GMP manufacturing, to enable the filing of an investigational new drug (IND) application.

Alivio's platform technology has demonstrated proof-of-concept in ten different preclinical models of inflammation including a validated preclinical model for the treatment of IC/BPS. ALV-107relieved pain at all study time points post therapy (vs. vehicle-only control: at 2 hr, p=0.002; 4 hr, p=0.002; 24 hr, p=0.0003). In contrast, the conventional lidocaine-treated group showed statistically significant pain relief only 2 hours post-treatment (p=0.03). Safety and efficacy of ALV-107 will be evaluated during a clinical development programme. There is no guarantee that this investigational agent will successfully complete clinical development or gain health authority approval.

About Interstitial Cystitis/Bladder Pain Syndrome (IC/BPS)

Interstitial Cystitis or Bladder Pain Syndrome (IC/BPS) is a chronic bladder condition that consists of discomfort or pain in the bladder or surrounding

pelvic region and is often associated with frequent urination. It is estimated to affect up to 12 million people in the U.S. and is more common in women than men. Current treatments fail to control pain in many patients.

About Purdue Pharma

Purdue Pharma L.P. develops and provides prescription medicines that meet the evolving needs of healthcare professionals, patients, and caregivers. We were founded by physicians and we are currently led by a physician. Beyond our efforts to provide quality medications, Purdue is committed to supporting national, regional and local collaborations to drive innovations in patient care. Privately held, Purdue is pursuing a pipeline of new medications and technologies through internal research & development and strategic industry partnerships. For more information, please visit www.purduepharma.com.

About Alivio Therapeutics

Alivio Therapeutics, an affiliate of PureTech Health (PRTC.L), is pioneering targeted disease immunomodulation to treat a range of chronic and acute inflammatory disorders. Targeted disease immunomodulation involves acting exclusively at the site of inflammation rather than systemically, to minimize impacts on the wider immune system and healthy tissue. To achieve this, Alivio's technology is engineered to bind selectively to inflamed tissue and dynamically release incorporated therapeutics based on the degree of inflammation. The therapeutics could potentially include a range of drug classes including small molecules, biologics, and nucleic acids. Alivio's pipeline includes candidates for interstitial cystitis/bladder pain syndrome (IC/BPS), pouchitis, and inflammatory bowel disease (IBD), and the platform technology has been validated in multiple pre-clinical models, including models of osteoarthritis.

The technology platform has been validated in ten different preclinical models of inflammation at multiple labs and published in peer-reviewed journals, including in *Science Translational Medicine* and *Nature Communications*. The technology is the first of its kind to demonstrate reproducible targeting of immunomodulatory compounds to inflamed tissue. Alivio was cofounded by PureTech Health, Jeffrey Karp, Ph.D., Professor of Medicine at Brigham and Women's Hospital, and Robert Langer, Sc.D., Non-Executive Director at PureTech Health and David H. Koch Institute Professor at MIT.

About PureTech Health

PureTech Health (LSE: PRTC) is an advanced biopharmaceutical company developing novel medicines for dysfunctions of the Brain-Immune-Gut (BIG) Axis. The Company has developed 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 across two divisions: 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. These Affiliates are developing ground-breaking platforms and therapeutic candidates 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.

PureTech Health owns approximately 82.8% of Alivio on a diluted basis[1] and approximately 80.0% on a fully-diluted basis.[2]

[1] This calculation of PureTech's holding includes issued and outstanding shares as well as options and warrants to purchase shares, but excludes unallocated shares authorised to be issued pursuant to equity incentive plans.

[2] This calculation includes issued and outstanding shares, outstanding options and warrants to purchase shares, and unallocated shares authorised to be issued pursuant to equity incentive plans.