Theravance Biopharma and Mylan Receive FDA Approval for YUPELRI™ (revefenacin) in Adults with Chronic Obstructive Pulmonary Disease

November 9, 2018

YUPELRI (revefenacin) is the first and only once-daily, nebulized bronchodilator approved for the treatment of COPD in the US

DUBLIN, Ireland, HERTFORDSHIRE, England and PITTSBURGH, Nov. 9, 2018 /PRNewswire/ -- Theravance Biopharma, Inc. (NASDAQ: TBPH) ("Theravance Biopharma") and Mylan N.V. (NASDAQ: MYL) ("Mylan") today announced that the U.S. Food and Drug Administration (FDA) has approved the New Drug Application (NDA) for YUPELRI™ (revefenacin) inhalation solution for the maintenance treatment of patients with chronic obstructive pulmonary disease (COPD). YUPELRI, a long-acting muscarinic antagonist (LAMA), is the first and only once-daily, nebulized bronchodilator approved for the treatment of COPD in the US. The companies expect YUPELRI to be available to COPD patients in the US before the end of the year. COPD is the third leading cause of death and the fourth leading cause of hospital readmissions in the US, affecting approximately 16 million Americans.[1]

"Long-acting muscarinic antagonists are recognized by international COPD treatment guidelines as a cornerstone first-line therapy for COPD, regardless of the severity of disease. To date, however, there have been no once-daily nebulized options available to patients or to prescribers. We believe that YUPELRI, discovered and characterized in our laboratories, is well positioned to address this need. With this approval, COPD patients who require or prefer nebulized therapy can access a once-daily nebulized bronchodilator for the first time," said Rick E Winningham, chairman and chief executive officer of Theravance Biopharma. "This approval, which comes during National COPD Awareness Month, is a testament to the collaborative efforts of the Theravance Biopharma and Mylan teams and their dedication to bringing an important treatment option for adults that suffer from COPD."

"The approval of YUPELRI represents a key milestone in advancing and expanding our scientific expertise regarding respiratory care. YUPELRI provides COPD patients with access to a nebulized LAMA therapy that offers consistent 24-hour lung function improvement with the convenience of once-daily dosing delivered through any standard jet nebulizer. We are proud to be part of this important approval and pleased to add YUPELRI to Mylan's expanding portfolio of respiratory therapies," said Mylan President Rajiv Malik. "Mylan and Theravance Biopharma's shared commitment to address an important need in the COPD treatment paradigm has served as the driving force behind the success of the clinical development program and ultimate commercial approval of YUPELRI."

"YUPELRI is a welcome new option for the COPD community, including patients and clinicians," said Sanjay Sethi, M.D., Professor and Chief, Pulmonary, Critical Care and Sleep Medicine and assistant vice president for health sciences at the University of Buffalo. "With its approval, clinicians will be better able to treat a broad range of COPD patients once-daily, including those who are not able or choose not to use handheld bronchodilators."

In two replicate pivotal Phase 3 efficacy studies, YUPELRI demonstrated statistically significant and clinically meaningful improvements as compared to placebo in trough forced expiratory volume in one second (FEV_1) and in overall treatment effect on trough FEV_1 (OTE FEV_1) after 12 weeks of dosing.[2] YUPELRI had comparable rates of adverse events (AEs) to placebo, low rates of serious adverse events (SAEs), and no clinically meaningful differences in blood parameters or electrocardiogram (ECG) data, across all treatment groups (active and placebo). YUPELRI should not be used in acutely deteriorating COPD or to treat acute symptoms. YUPELRI use should be discontinued if paradoxical bronchospasm occurs. As previously reported, the most commonly reported adverse events, across both trials and across all treatment groups, were cough, nasopharyngitis, upper respiratory tract infection, headache, and back pain. Additionally, the companies completed a 12-month Phase 3 open-label safety study versus tiotropium in which no new safety issues were identified. Rates of AEs and SAEs in the study were low and comparable to those seen in the tiotropium treatment arm.

Theravance Biopharma and its affiliates have partnered with Mylan and its affiliates on the development and commercialization of nebulized revefenacin products for COPD and other respiratory diseases. YUPELRI is a once-daily, nebulized bronchodilator for the treatment of patients with COPD and is compatible with any standard jet nebulizer.

For more information on National COPD Awareness Month, please visit the COPD Foundationhere.

Conference Call and Live Webcast Today at 4:30pm ET

Theravance Biopharma will hold a conference call and live webcast today at 4:30 pm ET. To participate in the live call by telephone, please dial (855) 296-9648 from the US, or (920) 663-6266 for international callers, and use the confirmation code 3360289. Those interested in listening to the conference call live via the internet may do so by visiting Theravance Biopharma's website at www.theravance.com, under the Investor Relations section, Presentations and Events. Please go to the website 15 minutes prior to the start of the call to register, download, and install any necessary audio software.

A replay of the conference call will be available on Theravance Biopharma's website for 30 days through December 9, 2018. An audio replay will also be available through 8:00 pm ET on November 16, 2018 by dialing (855) 859-2056 from the U.S., or (404) 537-3406 for international callers, and then entering confirmation code 3360289.

About Theravance Biopharma and Mylan Strategic Collaboration

Theravance Biopharma and Mylan N.V. and their respective affiliates have established a strategic collaboration to develop and commercialize nebulized revefenacin products for COPD and other respiratory diseases. Under the terms of the agreement, Theravance Biopharma is leading the US development program for the revefenacin inhalation solution product, with all costs related to the registrational program reimbursed by Mylan up until the approval of the first new drug application, after which costs will be shared. Mylan is responsible for ex-US development and commercialization. Theravance Biopharma is eligible to receive up to $220 million in development and sales milestone payments, as well as a profit-sharing arrangement with Mylan on US sales and double-digit royalties on ex-US sales. Additionally, Theravance Biopharma retains worldwide rights to revefenacin delivered through other dosage forms, such as a metered dose inhaler or dry powder inhaler (MDI/DPI), and the rights to nebulized revefenacin in China.

About COPD

COPD is a growing and devastating disease that is the third leading cause of death in the US.[1] Nearly 15.7 million Americans (6.4%) report that they have been diagnosed with COPD and more are believed to be undiagnosed.[3] There were more than 700,000 hospital discharges related to COPD in the US reported in 2010. The costs of managing COPD in the US were estimated to be nearly $50 billion in 2010, including $29.5 billion in direct healthcare expenditures, $8 billion in indirect morbidity costs and $12.4 billion in indirect mortality costs.[3]

About YUPELRI

YUPELRI (revefenacin) inhalation solution is a novel once-daily nebulized LAMA approved for the maintenance treatment of COPD in the US. Market research by Theravance Biopharma indicates approximately 9% of the treated COPD patients in the US use nebulizers for ongoing maintenance therapy.[4] LAMAs are a cornerstone of maintenance therapy for COPD and YUPELRI is positioned as a first-in-class once-daily single-agent bronchodilator product for COPD patients who require, or prefer, nebulized therapy. YUPELRI's stability in both metered dose inhaler and dry powder device formulations suggest that this LAMA could also serve as a foundation for novel handheld combination products.

About Theravance Biopharma

Theravance Biopharma, Inc. ("Theravance Biopharma") is a diversified biopharmaceutical company with the core purpose of creating medicines that help improve the lives of patients suffering from serious illness.

In our relentless pursuit of this objective, we strive to apply insight and innovation at each stage of our business, including research, development and commercialization, and utilize both internal capabilities and those of partners around the world. Our research efforts are focused in the areas of inflammation and immunology. Our research goal is to design localized medicines that target diseased tissues, without systemic exposure, in order to maximize patient benefit and minimize risk. These efforts leverage years of experience in developing localized medicines for the lungs to treat respiratory disease. The first potential medicine to emerge from our research focus on immunology and localized treatments is an oral, intestinally restricted pan-Janus kinase (JAK) inhibitor, currently in development to treat a range of inflammatory intestinal diseases. Our pipeline of internally discovered product candidates will continue to evolve with the goal of creating transformational medicines to address the significant needs of patients.

In addition, we have an economic interest in future payments that may be made by Glaxo Group or one of its affiliates (GSK) pursuant to its agreements with Innoviva, Inc. relating to certain programs, including Trelegy Ellipta.

For more information, please visit www.theravance.com.

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This press release contains and the conference call will contain certain "forward-looking" statements as that term is defined in the Private Securities Litigation Reform Act of 1995 regarding, among other things, statements relating to goals, plans, objectives, expectations and future events. Theravance Biopharma intends such forward-looking statements to be covered by the safe harbor provisions for forward-looking statements contained in Section 21E of the Securities Exchange Act of 1934 and the Private Securities Litigation Reform Act of 1995. Examples of such statements include statements relating to: the Company's strategies, plans and objectives, the Company's regulatory strategies and timing of clinical studies, the potential benefits and mechanisms of action of the Company's product and product candidates, the Company's expectations for product candidates through development, potential regulatory approval and commercialization (including their potential as components of combination therapies) and the Company's expectations for product sales. These statements are based on the current estimates and assumptions of the management of Theravance Biopharma as of the date of the press release and are subject to risks, uncertainties, changes in circumstances, assumptions and other factors that may cause the actual results of Theravance Biopharma to be materially different from those reflected in the forward-looking statements. Important factors that could cause actual results to differ materially from those indicated by such forward-looking statements include, among others, risks related to: delays or difficulties in commencing, enrolling or completing clinical studies, the potential that results from clinical or non-clinical studies indicate the Company's product candidates are unsafe or ineffective (including when our product candidates are studied in combination with other compounds), the feasibility of undertaking future clinical trials for our product candidates based on FDA policies and feedback, dependence on third parties to conduct clinical studies, delays or failure to achieve and maintain regulatory approvals for product candidates, risks of collaborating with or relying on third parties to discover, develop, manufacture and commercialize product and product candidates, and risks associated with establishing and maintaining sales, marketing and distribution capabilities with appropriate technical expertise and supporting infrastructure. Other risks affecting Theravance Biopharma are described under the heading "Risk Factors" contained in Theravance Biopharma'sForm 10-Q filed with the Securities and Exchange Commission (SEC) on November 7, 2018and Theravance Biopharma's other filings with the SEC. In addition to the risks described above and in Theravance Biopharma's filings with the SEC, other unknown or unpredictable factors also could affect Theravance Biopharma's results. No forward-looking statements can be guaranteed and actual results may differ materially from such statements. Given these uncertainties, you should not place undue reliance on these forward-looking statements. Theravance Biopharma assumes no obligation to update its forward-looking statements on account of new information, future events or otherwise, except as required by law.

About Mylan

Mylan is a global pharmaceutical company committed to setting new standards in healthcare. Working together around the world to provide 7 billion people access to high quality medicine, we innovate to satisfy unmet needs; make reliability and service excellence a habit; do what's right, not what's easy; and impact the future through passionate global leadership. We offer a growing portfolio of more than 7,500 marketed products around the

world, including antiretroviral therapies on which more than 40% of people being treated for HIV/AIDS globally depend. We market our products in more than 165 countries and territories. We are one of the world's largest producers of active pharmaceutical ingredients. Every member of our approximately 35,000-strong workforce is dedicated to creating better health for a better world, one person at a time. Learn more at Mylan.com. We routinely post information that may be important to investors on our website at investor.mylan.com.

This press release includes statements that constitute "forward-looking statements", including with regard to the companies expecting YUPELRI to be available to COPD patients in the U.S. in before the end of the year; and that the approval of YUPELRI represents a key milestone in the advancement of respiratory care by providing COPD patients with access to a nebulized LAMA therapy that offers consistent 24-hour duration of effect with the convenience of once-daily dosing. These statements are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Because such statements inherently involve risks and uncertainties, actual future results may differ materially from those expressed or implied by such forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to: success of clinical trials and our or our partners' ability to execute on new product opportunities; any regulatory, legal or other impediments to our or our partners' ability to bring products to market; other risks inherent in product development; the scope, timing, and outcome of any ongoing legal proceedings, including government investigations, and the impact of any such proceedings on our or our partners' businesses; actions and decisions of healthcare and pharmaceutical regulators, and changes in healthcare and pharmaceutical laws and regulations, in the United States and abroad; the impact of competition; strategies by competitors or other third parties to delay or prevent product introductions; the effect of any changes in our or our partners' customer and supplier relationships and customer purchasing patterns; any other changes in third-party relationships; changes in the economic and financial conditions of the businesses of Mylan or its partners; uncertainties and matters beyond the control of management; and the other risks detailed in Mylan's filings with the Securities and Exchange Commission. Mylan undertakes no obligation to update these statements for revisions or changes after the date of this release.

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References

[1] American Lung Association. "Chronic Obstructive Pulmonary Disease (COPD)" http://www.lung.org/lung-health-and-diseases/lung-disease-lookup/copd. Accessed on September 29, 2016.

[2] "Clinically meaningful" is defined by industry established Minimal Clinically Important Difference (MCID) for lung function (100 mL improvement in FEV_1).

[3]Center for Disease Control, COPD https://www.cdc.gov/copd/index.html. Accessed on January 3, 2018.

[4] TBPH market research (N = 160 physicians); Refers to US COPD patients

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