February 24, 2015

Theravance Biopharma Enrolls First Patient in Phase 3 Registrational Study of Telavancin in Staphylococcus Aureus Bacteremia

Trial Designed to Support Regulatory Filing; Potential to Expand Label for VIBATIV(R) (telavancin) to Third Difficult-to-Treat, Gram-Positive Infection Type

GEORGE TOWN, GRAND CAYMAN -- (Marketwired) -- 02/24/15 -- Theravance Biopharma, Inc. (NASDAQ: TBPH) ("Theravance Biopharma" or the "Company") today announced enrollment of the first patient in the Company's Phase 3 registrational study of telavancin in patients with *Staphylococcus aureus* bacteremia. The trial is designed to support a regulatory filing for telavancin as a treatment for *Staphylococcus aureus* bacteremia. Bacteremia is the presence of bacteria in the bloodstream and represents a significant unmet medical need. There are only two currently approved antibiotics for the treatment of *Staphylococcus aureus* bacteremia and treatment failure is common in these patients, particularly when the infection is methicillin-resistant *Staphylococcus aureus* (MRSA).[1,2]

Theravance Biopharma markets telavancin in the U.S. as VIBATIV® (telavancin) in the product's two currently approved indications. These include the treatment of adult patients with hospital-acquired and ventilator-associated bacterial pneumonia (HABP/VABP) when alternative treatments are not suitable and in complicated skin and skin structure infections (cSSSI) caused by susceptible isolates of Gram-positive bacteria, including *Staphylococcus aureus*, both methicillin-susceptible (MSSA) and methicillin-resistant (MRSA) strains.

VIBATIV is a bactericidal, once-daily, injectable lipoglycopeptide antibiotic with *in vitro* potency and a dual mechanism of action whereby telavancin both inhibits bacterial cell wall synthesis and disrupts bacterial cell membrane function. The drug's proven efficacy against difficult-to-treat infections has been demonstrated in several large, multinational registrational studies, which involved one of the largest cohorts of patients with MRSA infections studied to date. Recently presented study analyses at key scientific conferences further supplement the extensive and well-documented evidence of the drug's *in vitro* potency and *in vitro* activity against a broad collection of bacterial pathogens, including those that are considered difficult-to-treat and multidrug-resistant.

"Bacteremia is a serious healthcare system challenge associated with significant morbidity and mortality and is in need of new, effective antibiotic treatments," stated Rick E Winningham, Chairman and Chief Executive Officer. "We have previously seen evidence of the potential for telavancin to successfully treat Gram-positive bloodstream infections in our Phase 2 uncomplicated *Staphylococcus aureus* bacteremia study, as well as investigator-initiated studies. Based on these promising signs of activity for telavancin, and the acute healthcare system need for effective antibiotics for these difficult-to-treat infections, we have decided to conduct this registrational Phase 3 study."

The Phase 3 trial is a multi-center, randomized, open-label study that will enroll approximately 250 adult patients with confirmed MSSA or MRSA bacteremia at about 70 clinical sites in the U.S. and around the world. Researchers will evaluate the non-inferiority of telavancin in treating these patients as compared to standard therapies such as vancomycin, daptomycin and anti-staphylococcal penicillins.

"Mortality rates for MRSA bacteremia range up to 30 percent despite currently available treatments," [3-6] stated G. Ralph Corey, M.D., professor of medicine at Duke University School of Medical and a principal investigator for the bacteremia trial. "The most difficult-to-treat cases of *Staphylococcus aureus* bacteremia need new options as treatment failures commonly occur in these patients. Based on the profile of VIBATIV, we are interested in evaluating whether this antibiotic can help increase the number of patients who have positive clinical outcomes."

Theravance Biopharma believes that VIBATIV has the potential to be an effective treatment for *Staphylococcus aureus* bacteremia based on several key product attributes:

- VIBATIV has demonstrated potent *in vitro* bactericidal activity against Gram-positive bacteria such as *Staphylococcus aureus*, including MRSA. *Staphylococcus aureus* is a leading cause of bacteremia.
- The efficacy of VIBATIV is evidenced by the clinical cure rates demonstrated in its large, pivotal, multi-center, multinational, double-blind, randomized Phase 3 clinical trials in patients with complicated skin and skin structure infections (cSSSI) and hospital-acquired and ventilator-associated bacterial pneumonia (HABP/VABP).

- VIBATIV possesses a dual mechanism of action with which it kills bacteria by both inhibiting cell wall biosynthesis and disrupting membrane barrier function.

- VIBATIV has demonstrated significant penetration into important lung and tissue sites including pulmonary epithelial lining fluid (ELF), alveolar macrophages (AM), and skin blister fluid.

"We believe that there is a compelling rationale supporting the potential of VIBATIV as an antibiotic treatment for *Staphylococcus aureus* bacteremia, particularly those difficult-to-treat infections caused by MRSA," said Mr. Winningham. "If we are successful with this Phase 3 study and a subsequent regulatory filing, VIBATIV will be the only branded antibiotic to be approved in bacteremia, HABP/VABP and cSSSI -- three difficult-to-treat, Gram-positive infections."

About Bacteremia

Bacteremia represents a serious medical condition that can lead to the spread of infection throughout the body, as well as the potentially fatal conditions of sepsis and septic shock. *Staphylococcus aureus* is a leading cause of bacteremia and treatment failure is fairly common in patients with *Staphylococcus aureus* bacteremia, particularly when the infection is caused by MRSA. Mortality rates associated with *Staphylococcus aureus* bacteremia remain high, reported in the range of 20-30%.[3-6] Mortality is higher among patients with MRSA infection.[7,8]

About VIBATIV® (telavancin)

VIBATIV was discovered internally in a research program dedicated to finding new antibiotics for serious infections due to *Staphylococcus aureus* and other Gram-positive bacteria, including MRSA. VIBATIV is a bactericidal, once-daily, injectable lipoglycopeptide antibiotic with *in vitro* potency and a dual mechanism of action whereby telavancin both inhibits bacterial cell wall synthesis and disrupts bacterial cell membrane function. VIBATIV is approved in the U.S. for the treatment of adult patients with HABP/VABP when alternative treatments are not suitable and for cSSSI caused by susceptible isolates of Gram-positive bacteria, including *Staphylococcus aureus*, both methicillin-susceptible (MSSA) and methicillin-resistant (MRSA) strains.

Theravance Biopharma plans to market VIBATIV in markets outside the United States where the drug is approved through a network of partners.

In Europe, VIBATIV is indicated for the treatment of adults with nosocomial pneumonia (NP) including ventilator associated pneumonia, known or suspected to be caused by MRSA. VIBATIV should be used only in situations where it is known or suspected that other alternatives are not suitable. VIBATIV is not currently indicated for the treatment of cSSSI in Europe.

Clinigen Group holds the commercial rights to market and distribute VIBATIV in Europe.

Theravance Biopharma also has partners in the following geographies -- Canada, Middle East, North Africa, Israel, and Russia. Discussions continue regarding potential partnering relationships in other parts of the world.

VIBATIV® Important Safety Information (U.S.)

Mortality

Patients with pre-existing moderate/severe renal impairment (CrCl ≤ 50 mL/min) who were treated with VIBATIV for hospital-acquired bacterial pneumonia/ventilator-associated bacterial pneumonia had increased mortality observed versus vancomycin. Use of VIBATIV in patients with pre-existing moderate/severe renal impairment (CrCl ≤ 50 mL/min) should be considered only when the anticipated benefit to the patient outweighs the potential risk.

Nephrotoxicity

New onset or worsening renal impairment occurred in patients who received VIBATIV. Renal adverse events were more likely to occur in patients with baseline comorbidities known to predispose patients to kidney dysfunction and in patients who received concomitant medications known to affect kidney function. Monitor renal function in all patients receiving VIBATIV prior to initiation of treatment, during treatment, and at the end of therapy. If renal function decreases, the benefit of continuing VIBATIV versus discontinuing and initiating therapy with an alternative agent should be assessed.

Fetal Risk

Women of childbearing potential should have a serum pregnancy test prior to administration of VIBATIV. Avoid use of VIBATIV

during pregnancy unless the potential benefit to the patient outweighs the potential risk to the fetus. Adverse developmental outcomes observed in three animal species at clinically relevant doses raise concerns about potential adverse developmental outcomes in humans. If not already pregnant, women of childbearing potential should use effective contraception during VIBATIV treatment.

Contraindication

Intravenous unfractionated heparin sodium is contraindicated with VIBATIV administration due to artificially prolonged activated partial thromboplastin time (aPTT) test results for up to 18 hours after VIBATIV administration.

VIBATIV is contraindicated in patients with a known hypersensitivity to the drug.

Hypersensitivity Reactions

Serious and potentially fatal hypersensitivity reactions, including anaphylactic reactions, may occur after first or subsequent doses. VIBATIV should be used with caution in patients with known hypersensitivity to vancomycin.

Geriatric Use

Telavancin is substantially excreted by the kidney, and the risk of adverse reactions may be greater in patients with impaired renal function. Because elderly patients are more likely to have decreased renal function, care should be taken in dose selection in this age group.

Infusion Related Reactions

VIBATIV is a lipoglycopeptide antibacterial agent and should be administered over a period of 60 minutes to reduce the risk of infusion-related reactions. Rapid intravenous infusions of the glycopeptide class of antimicrobial agents can cause "Red-man Syndrome" like reactions including: flushing of the upper body, urticaria, pruritus, or rash.

QTc Prolongation

Caution is warranted when prescribing VIBATIV to patients taking drugs known to prolong the QT interval. In a study involving healthy volunteers, VIBATIV prolonged the QTc interval. Use of VIBATIV should be avoided in patients with congenital long QT syndrome, known prolongation of the QTc interval, uncompensated heart failure, or severe left ventricular hypertrophy.

Most Common Adverse Reactions

The most common adverse reactions (greater than or equal to 10% of patients treated with VIBATIV) were diarrhea, taste disturbance, nausea, vomiting, and foamy urine.

Full Prescribing Information, including Boxed Warning and Medication Guide in the U.S., is available at www.VIBATIV.com.

About Theravance Biopharma
The mission of Theravance Biopharma (NASDAQ: TBPH) is to create value from a unique and diverse set of assets: an approved product; a development pipeline of late-stage assets; and a productive research platform designed for long-term growth.

Our pipeline of internally discovered product candidates includes potential best-in-class opportunities in underserved markets in the acute care setting, representing multiple opportunities for value creation. VIBATIV® (telavancin), our first commercial product, is a once-daily dual-mechanism antibiotic approved in the U.S. and Europe for difficult-to-treat infections. TD-4208 is an investigational long-acting muscarinic antagonist (LAMA) being developed as a potential once-daily, nebulized treatment for COPD. Axelopran (TD-1211) is an investigational potential once-daily, oral treatment for opioid-induced constipation (OIC). Our earlier-stage clinical assets represent novel approaches for potentially treating diseases of the lung and gastrointestinal tract and infectious disease. In addition, we have an economic interest in future payments that may be made by GSK pursuant to its agreements with Theravance, Inc. relating to certain drug development programs, including the combination of umeclidinium, vilanterol and fluticasone furoate (or the "Closed Triple").

With our successful drug discovery and development track record, commercial infrastructure, experienced management team and efficient corporate structure, we believe that we are well positioned to create value for our shareholders and make a difference in the lives of patients.

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

THERAVANCE®, the Cross/Star logo, MEDICINES THAT MAKE A DIFFERENCE® and VIBATIV® are registered trademarks of the Theravance Biopharma group of companies.

This press release contains 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 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 and results of clinical studies, the potential benefits and mechanisms of action of the Company's product and product candidates and the Company's expectations for product candidates through development and commercialization. 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 or completing clinical studies, the potential that results from clinical or non-clinical studies indicate the Company's product candidates are unsafe or ineffective, 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 third parties to discover, develop and commercialize product and product candidates and risks associated with establishing and maintaining sales, marketing and distribution capabilities with appropriate expertise and supporting infrastructure. Other risks affecting Theravance Biopharma are described under the heading "Risk Factors" contained in Theravance Biopharma's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission (SEC) on November 12, 2014. In addition to the risks described above and in Theravance Biopharma's other 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.

[1] Lodise TP, Graves J, Evans A, Graffunder E, Helmecke M, Lomaestro BM, Stellrecht K. Relationship between vancomycin MIC and failure among patients with methicillin-resistant Staphylococcus aureus bacteremia treated with vancomycin. Antimicrob Agents Chemother. 2008;52(9):3315.

[2] Ravina Kullar, Susan L. Davis, Donald P. Levine, Michael J. Rybak. Impact of Vancomycin Exposure on Outcomes in Patients With Methicillin-Resistant *Staphylococcus aureus* Bacteremia: Support for Consensus Guidelines Suggested Targets. Clin Infect Dis. *(2011) 52 (8): 975-981.*

[3] Whitby M, McLaws ML, Berry G. Risk of death from methicillin-resistant Staphylococcus aureus bacteraemia: a meta-analysis. Med J Aust. Sep 3 2001;175(5):264-267.

[4] Benfield T, Espersen F, Frimodt-Møller N, Jensen AG, Larsen AR, Pallesen LV, Skov R, Westh H, Skinhøj P. Increasing incidence but decreasing in-hospital mortality of adult Staphylococcus aureus bacteraemia between 1981 and 2000. Clin Microbiol Infect. 2007 Mar;13(3):257-63.

[5] Turnidge JD, Kotsanas D, Munckhof W, Roberts S, Bennett CM, Nimmo GR, Coombs GW, Murray RJ, Howden B, Johnson PD, Dowling K; Australia New Zealand Cooperative on Outcomes in Staphylococcal Sepsis. Staphylococcus aureus bacteraemia: a major cause of mortality in Australia and New Zealand. Med J Aust. 2009 Oct 5;191(7):368-73.

[6] van Hal SJ, Jensen SO, Vaska VL, Espedido BA, Paterson DL, Gosbell IB. Predictors of mortality in Staphylococcus aureus bacteremia. Clin Microbiol Rev. Apr 2012;25(2):362-386.

[7] Marra AR, Edmond MB, Forbes BA, Wenzel RP, Bearman GM. Time to blood culture positivity as a predictor of clinical outcome of Staphylococcus aureus bloodstream infection. J Clin Microbiol. 2006;44(4):1342.

[8] Cosgrove SE, Sakoulas G, Perencevich EN, et al. Comparison of mortality associated with methicillin-resistant and methicillin-susceptible Staphylococcus aureus bacteremia: a meta-analysis. Clin Infect Dis 2003;36:53-9.

Contact Information:

Renee Gala
Chief Financial Officer
650-808-4045
investor.relations@theravance.com

Tim Brons
Vida Strategic Partners (media)
646-319-8981
tbrons@vidasp.com

Source: Theravance Biopharma