Cumberland Pharmaceuticals Announces Initiative To Expand Availability Of VIBATIV® To Treat Hospital-Acquired & Ventilator-Associated Pneumonia Resulting From Coronavirus Infections

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- Response to COVID-19 Crisis Includes Special Supply Arrangements for U.S. Hospitals
- Initiative Designed to Help Address Potential Antibiotic Shortages
- Sponsoring an Expert Infectious Disease Panel Discussion of the Management of Complicated Respiratory Infections Resulting from COVID-19

NASHVILLE, Tenn., March 23, 2020 /PRNewswire/ -- **Cumberland Pharmaceuticals Inc. (NASDAQ: CPIX)**, a U.S. specialty pharmaceutical company, today announced a national initiative to support the treatment of patients with hospital-acquired and ventilator-associated pneumonia associated with the outbreak of the COVID-19 coronavirus.

Pneumonia caused by secondary bacterial infections – such as a Gram-positive bacterial infection – is common among patients with viral respiratory infections. Furthermore, pneumonia was the leading cause of death in patients suffering from the 1918 Spanish Flu pandemic, which was prior to the use of antibiotics, according to a manuscript co-authored by Dr. Anthony S. Fauci, the current director of the U.S. National Institute of Allergy and Infectious Diseases.[1]

Cumberland's initiative includes the availability of special financial arrangements for hospitals and clinics to help ensure supply during this unprecedented healthcare crisis. In addition, Cumberland is sponsoring a national program with infectious disease experts to provide information on the management of complicated respiratory infections resulting from the novel coronavirus.

Cumberland manufactures the potent antibiotic VIBATIV® (*telavancin*) injection, designed to treat serious infections due to *Staphylococcus aureus (S. aureus)* and other Gram-positive bacteria, including *Methicillin-resistant Staphylococcus aureus (MRSA)* and *Methicillin-sensitive Staphylococcus aureus (MSSA*).

"We have been closely monitoring the evolving COVID-19 situation and its impact on our country, including our economy, financial markets and health care system," said A.J. Kazimi, Chief Executive Officer of Cumberland Pharmaceuticals. "Based on recommendations from the *Centers for Disease Control (CDC),* we are taking appropriate action to secure our supply chain, support hospitals and clinics, and assure the supply of our medications."

The special financial arrangements being offered by Cumberland include extended payment terms for all direct account purchases of its VIBATIV antibiotic. This program is designed to provide health care facilities the flexibility to weather the uncertain economic environment, while still providing the potent antibiotic treatment patients need. Cumberland has a stable and sufficient supply of VIBATIV to support not only the current demand, but also the potential increased demand due to shortages of other antibiotics, such as vancomycin and daptomycin.

For more information regarding this special supply, contact Jim Herman, Cumberland's Senior Vice President National Accounts, at jherman@cumberlandpharma.com.

Cumberland's national program with infectious disease experts – designed to help prepare health care professionals for increased hospitalizations due to COVID-19 – will cover the management of complicated respiratory infections resulting from COVID-19, including those caused by secondary bacterial infections. The risk of such infections grows as hospitals see more patients with respiratory symptoms due to COVID-19. Research shows that hospital-acquired pneumonia (HAP) and ventilator-associated pneumonia (VAP) account for 22 percent of common hospital-acquired infections.[2] Methicillin-sensitive and methicillin-resistant *S. aureus* (MSSA and MRSA) are important disease-causing pathogens in these cases. [2]

For more information on this national infectious disease program, contact Claire Wyant, Director at Cumberland, at cwyant@cumberlandpharma.com.

About VIBATIV®

VIBATIV® (*telavancin*) injection was discovered in a research program dedicated to finding new antibiotics for serious infections due to *Staphylococcus aureus (S. aureus)* and other Gram-positive bacteria, including MRSA and MSSA. VIBATIV is a once-daily, injectable lipoglycopeptide antibiotic with *in vitro* potency, bactericidal activity within six hours, and penetration into target infection sites.

The drug is approved in the U.S. for the treatment of adult patients with hospital-acquired and ventilator-associated bacterial pneumonia (HABP/VABP) caused by susceptible isolates of *S. aureus* when alternative treatments are not suitable.

In addition, VIBATIV is approved in the U.S. for the treatment of adult patients with complicated skin & skin structure infections (cSSSI) caused by susceptible isolates of Gram-positive bacteria, including *S. aureus*, both methicillin-susceptible (MSSA) and methicillin-resistant (MRSA) strains.

The product labeling also describes the use of VIBATIV in treating patients whose pneumonia or skin infection is complicated by concurrent bacteremia.

The product's proven efficacy against difficult-to-treat Gram-positive infections has been demonstrated in several large, multinational registrational studies, which involved one of the largest cohorts of patients with *S. aureus* infections studied to date.

Importantly, these studies demonstrated significantly higher cure rates for VIBATIV as compared to vancomycin in HABP/VABP due to any single Gram-positive pathogen or *S. aureus* with vancomycin MIC ≥1 µg/mL.

Additionally, there is extensive and well-documented evidence of the drug's *in vitro* potency and *in vivo* activity against a broad collection of Gram-positive bacterial pathogens, including those that are considered difficult-to-treat and multidrug-resistant. For full prescribing information, visit www.vibativ.com.

References:
1. Morens DM, Taubenberger JK, Fauci AS. Predominant role of bacterial pneumonia as a cause of death in pandemic influenza: implications for pandemic influenza preparedness. *J Infect Dis*. 2008;198(7):962–970.
2. Kalil AC, Metersky ML, Klompas M, et al. Management of adults with hospital-acquired and ventilator-associated pneumonia: 2016 clinical practice guidelines by the Infectious Diseases Society of America and the American Thoracic Society. *Clin Infect Dis.* 2016;63(5):e61–111.

About Cumberland Pharmaceuticals

Cumberland Pharmaceuticals Inc. is a specialty pharmaceutical company focused on the delivery of high-quality prescription brands to improve patient care. The Company develops, acquires and commercializes brands for the hospital acute care and gastroenterology market segments. These medical specialties are categorized by moderately concentrated prescriber bases that we believe can be penetrated effectively by targeted sales forces. The Company's portfolio of FDA-approved brands includes:

- **Acetadote®** (*acetylcysteine*) Injection, for the treatment of acetaminophen poisoning;
- **Caldolor®** (*ibuprofen*) Injection, for the treatment of pain and fever;
- **Kristalose®** (*lactulose*) for Oral Solution, a prescription laxative, for the treatment of chronic and acute constipation;
- **Omeclamox®-Pak**, (*omeprazole, clarithromycin, amoxicillin*) for the treatment of Helicobacter pylori (*H. pylori*) infection and related duodenal ulcer disease;
- **Vaprisol®** (*conivaptan*) Injection, to raise serum sodium levels in hospitalized patients with euvolemic and hypervolemic hyponatremia;
- **Vibativ®** (*telavancin*) Injection, for the treatment of certain serious bacterial infections including hospital-acquired and ventilator-associated bacterial pneumonia, as well as complicated skin and skin structure infections;
- **RediTrex™** *(methotrexate)* Injection, for the treatment of active rheumatoid, juvenile idiopathic and severe psoriatic arthritis, as well as disabling psoriasis.

For more information on Cumberland's approved products, including full prescribing information, please visit the individual product websites, links to which can be found on the Company's website: www.cumberlandpharma.com.

The Company has Phase II clinical programs underway evaluating its ifetroban product candidates in patients with cardiomyopathy associated with Duchenne Muscular Dystrophy ("DMD"), Systemic Sclerosis ("SSc"), and Aspirin-Exacerbated Respiratory Disease ("AERD"), Hepatorenal Syndrome ("HRS") and Portal Hypertension ("PH").

Forward-Looking Statements

This press release contains forward-looking statements, which are subject to certain risks and reflect Cumberland's current views on future events based on what it believes are reasonable assumptions. No assurance can be given that these events will occur. As with any business, all phases of Cumberland's operations are subject to factors outside of its control, and any one or combination of these factors could materially affect Cumberland's results of operations. These factors include market conditions, competition, an inability of manufacturers to produce Cumberland's products on a timely basis or failure of manufacturers to comply with regulations applicable to pharmaceutical manufacturers, maintaining an effective sales and marketing infrastructure, natural disasters, public health epidemics, and other events beyond our control, as more fully discussed in the Company's most recent Form 10-K and subsequent 10-Qs as filed with the SEC. There can be no assurance that results anticipated by the Company will be realized or that they will have the expected effects. Readers are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date hereof. The Company does not undertake any obligation to publicly revise these statements to reflect events after the date hereof.

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