Results from Pivotal Phase 3 ATTACK Trial of Investigational Sulbactam-Durlobactam for Treatment of Serious Infections Caused by Acinetobacter Published in The Lancet Infectious Diseases

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- *Sulbactam-durlobactam is the first pathogen-targeted therapy under investigation for the treatment of hospital-acquired bacterial pneumonia and ventilator-associated bacterial pneumonia caused by susceptible strains of* Acinetobacter baumannii-calcoaceticus *complex* (Acinetobacter).

WALTHAM, Mass.--(BUSINESS WIRE)--May 11, 2023-- Innoviva Specialty Therapeutics, a subsidiary of Innoviva, Inc. (Nasdaq: INVA) focused on delivering innovative therapies in critical care and infectious disease, today announced that *The Lancet Infectious Diseases* published detailed results from the pivotal Phase 3 ATTACK trial of sulbactam-durlobactam, the first pathogen-targeted therapy being studied for the treatment of adults with hospital-acquired bacterial pneumonia and ventilator-associated bacterial pneumonia caused by susceptible strains of *Acinetobacter baumannii-calcoaceticus* complex (*Acinetobacter*). The study – Efficacy and Safety of Sulbactam-Durlobactam vs. Colistin for the Treatment of Patients with Serious Infections due to *Acinetobacter Baumannii-Calcoaceticus* Complex: a multicentre, randomised, active-controlled, Phase 3, non-inferiority clinical trial (ATTACK) – was first published online on May 11.

The Phase 3 trial evaluated the safety and efficacy of sulbactam-durlobactam versus colistin in patients with infections caused by *Acinetobacter.* In the trial, sulbactam-durlobactam demonstrated statistical non-inferiority versus colistin for the primary endpoint of 28-day all-cause mortality in patients with carbapenem-resistant *Acinetobacter* infections and a significant difference in clinical cure rates. Sulbactam-durlobactam also exhibited a favorable safety profile with a statistically significant lower incidence of nephrotoxicity as measured by modified Risk–Injury–Failure–Loss and End-stage kidney disease (RIFLE) criteria.

“Serious bacterial infections caused by *Acinetobacter baumannii-calcoaceticus* complex often result in death, as the pathogen is increasingly resistant to carbapenems and other existing agents,” said Keith Kaye, MD, MPH, Chief, Division of Allergy, Immunology and Infectious Diseases at Rutgers Robert Wood Johnson Medical School. “The safety and efficacy demonstrated during the Phase 3 ATTACK trial by sulbactam-durlobactam, which was designed specifically for treating serious infections caused by *Acinetobacter*, are very promising, and provide hope that we’ll have a novel, desperately needed, effective treatment option against this lethal pathogen.”

Infections caused by drug-resistant *Acinetobacter* are serious and life-threatening conditions associated with high morbidity and mortality[1] and long, expensive hospital stays. *Acinetobacter* is resistant to penicillins and has also acquired resistance genes for almost all antibiotics used to treat Gram-negative bacteria, including fluoroquinolones, aminoglycosides, cephalosporins, and carbapenems.

The Centers for Disease Control and Prevention (CDC) has identified carbapenem-resistant micro-organisms as an urgent threat[2]. Globally, *Acinetobacter baumannii* was among the top six leading pathogens for deaths associated with resistance in 2019[3]. Carbapenem-resistant *Acinetobacter* is considered a Priority 1 pathogen by the World Health Organization (WHO)[4].

The New Drug Application (NDA) for sulbactam-durlobactam, filed by Entasis Therapeutics Inc., an affiliate of Innoviva Specialty Therapeutics, is currently under Priority Review by the U.S. Food and Drug Administration (FDA). On April 17, 2023, the FDA’s Antimicrobial Drugs Advisory Committee (AMDAC) voted unanimously 12-0 in support of approval based on a favorable benefit-risk assessment of sulbactam-durlobactam for the treatment of adults with hospital-acquired bacterial pneumonia and ventilator-associated bacterial pneumonia caused by susceptible strains of *Acinetobacter*. The sulbactam-durlobactam NDA has a Prescription Drug User Fee Act (PDUFA) target action date of May 29, 2023.

About *Acinetobacter*
Members of the *Acinetobacter baumannii-calcoaceticus* complex (*Acinetobacter*) are Gram-negative, opportunistic human pathogens that predominantly infect critically ill patients often resulting in severe pneumonia and bloodstream infections. They can also infect other body sites, such as the urinary tract and the skin. *Acinetobacter* is considered a global threat in the healthcare setting due in part to its ability to acquire multidrug resistance.

In the U.S., there are an estimated 40,000 to 80,000 cases of *Acinetobacter* each year[5], and about 40 percent of those are carbapenem-resistant *Acinetobacter*[6]. Globally, there are about a million cases each year of *Acinetobacter*, and about two-thirds of those are carbapenem-resistant *Acinetobacter baumannii*[5]. More than 300,000 global deaths annually are associated with carbapenem-resistant *Acinetobacter*[7].

About sulbactam-durlobactam
Sulbactam-durlobactam is an intravenous, or IV, investigational drug that is a combination of sulbactam, a beta-lactam antibacterial, and durlobactam, a beta-lactamase inhibitor, being developed for the treatment of hospital-acquired bacterial pneumonia and ventilator-associated bacterial pneumonia caused by susceptible strains of *Acinetobacter baumannii-calcoaceticus* complex *(Acinetobacter)*. Sulbactam-durlobactam has been designated a Qualified Infectious Disease Product by the FDA, a designation that aims to spur development of new antibiotics for serious and life-threatening infections. In November 2022, the FDA accepted the New Drug Application (NDA) for sulbactam-durlobactam for Priority Review and set a Prescription Drug User Fee Act (PDUFA) target date of May 29, 2023.

About Innoviva Specialty Therapeutics
Innoviva Specialty Therapeutics, a subsidiary of Innoviva, Inc., is focused on delivering innovative therapies in critical care and infectious disease. Innoviva Specialty Therapeutics’ products, through its affiliate, La Jolla Pharmaceutical Company, include GIAPREZA® (angiotensin II), approved to increase blood pressure in adults with septic or other distributive shock, and XERAVA® (eravacycline) for the treatment of complicated intra-abdominal infections in adults. In addition, through its affiliate, Entasis Therapeutics Inc., sulbactam-durlobactam is an investigational, targeted antibiotic in late-stage development for the treatment of hospital-acquired bacterial pneumonia and ventilator-associated bacterial pneumonia caused by

susceptible strains of *Acinetobacter baumannii-calcoaceticus* complex (*Acinetobacter*). For more information about Innoviva Specialty Therapeutics, please visit here.

About Innoviva

Innoviva, Inc., is a diversified holding company with a portfolio of royalties and other healthcare assets, including Innoviva Specialty Therapeutics, a subsidiary focused on delivering innovative therapies in critical care and infectious disease. Innoviva's royalty portfolio includes respiratory assets partnered with Glaxo Group Limited (GSK), including RELVAR®/BREO® ELLIPTA® (fluticasone furoate/vilanterol, FF/VI) and ANORO® ELLIPTA® (umeclidinium bromide/vilanterol, UMEC/VI). Under the Long-Acting Beta2 Agonist (LABA) Collaboration Agreement, Innoviva is entitled to receive royalties from GSK on sales of RELVAR®/BREO® ELLIPTA® and ANORO® ELLIPTA®. ANORO®, RELVAR® and BREO® are trademarks of the GSK group of companies. For more information on Innoviva, please visit here.

Forward Looking Statements

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. Innoviva 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. The words "anticipate", "expect", "goal", "intend", "objective", "opportunity", "plan", "potential", "target" and similar expressions are intended to identify such forward-looking statements. Such forward-looking statements involve substantial risks, uncertainties, and assumptions. These statements are based on the current estimates and assumptions of the management of Innoviva as of the date of this press release and are subject to known and unknown risks, uncertainties, changes in circumstances, assumptions and other factors that may cause the actual results of Innoviva 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: expected cost savings; lower than expected future royalty revenue from respiratory products partnered with GSK; the commercialization of RELVAR®/BREO® ELLIPTA®, ANORO® ELLIPTA® and, formerly, TRELEGY® ELLIPTA® in the jurisdictions in which these products have been approved; the strategies, plans and objectives of Innoviva (including Innoviva's growth strategy and corporate development initiatives beyond the existing respiratory portfolio); the timing, manner, and amount of potential capital returns to shareholders; the status and timing of clinical studies, data analysis and communication of results; the potential benefits and mechanisms of action of product candidates; expectations for product candidates through development and commercialization; the timing of regulatory approval of product candidates; and projections of revenue, expenses and other financial items; the impact of the novel coronavirus (COVID-19). Other risks affecting Innoviva are described under the headings "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" contained in Innoviva's Annual Report on Form 10-K for the year ended December 31, 2022 and Quarterly Reports on Form 10-Q, which are on file with the Securities and Exchange Commission (SEC) and available on the SEC's website at www.sec.gov. Past performance is not necessarily indicative of future 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. The information in this press release is provided only as of the date hereof, and Innoviva assumes no obligation to update its forward-looking statements on account of new information, future events or otherwise, except as required by law.

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