



Arsanis Presents Preclinical Data on Lead Product Candidate, ASN100, at the “2017 ASM/ESCMID Conference on Drug Development to Meet the Challenge of Antimicrobial Resistance”

-- Dose-dependent efficacy of ASN100 demonstrated in animal models of the prevention and treatment of lethal S. aureus pneumonia --

-- Data supports ongoing ASN100 Phase 2 clinical development program --

WALTHAM, Mass. and VIENNA, Austria – September 8, 2017 – Arsanis, Inc., a clinical-stage biopharmaceutical company focused on applying monoclonal antibody immunotherapies to address serious infectious diseases, today announced that the company presented positive preclinical efficacy data in prevention and treatment models of lethal *Staphylococcus aureus* pneumonia for its investigational lead product candidate, ASN100, which is currently in a Phase 2 clinical trial for the prevention of *S. aureus* pneumonia in high-risk, mechanically ventilated patients. These data were described in two poster presentations at the 2017 ASM/ESCMID Conference on Drug Development to Meet the Challenge of Antimicrobial Resistance, taking place in Boston from September 6 – 8.

“The preclinical data presented at the ASM/ESCMID meeting further support the development of ASN100, a first-in-class monoclonal antibody therapeutic with a non-antibiotic mechanism of action,” said Eszter Nagy, M.D., Ph.D., Co-Founder, and Chief Scientific Officer of Arsanis. “ASN100 monotherapy demonstrated complete protection against a range of *S. aureus* strains in a preventative rabbit model of *S. aureus* pneumonia. The data also indicate the therapeutic potential of ASN100, demonstrating the importance of broad neutralization of cytotoxins critical to *S. aureus* pneumonia.”

Summary of Posters

Prophylactic Efficacy and Pharmacokinetics of Cytotoxin-Neutralizing Monoclonal IgGs in Rabbit Models of Staphylococcus aureus Pneumonia. Poster #99.

In this study of ASN100 in a rabbit model of the prevention of lethal *S. aureus* pneumonia, ASN100 elicited high protective efficacy against all *S. aureus* strains tested irrespective of antibiotic susceptibility and toxin expression profiles. Significant dose-dependent protection was observed with the highest doses achieving 100 percent (100%) survival at 96 hours in this acute pneumonia model. Improved lung pathology, including reduced tissue damage, edema rates and bacterial burden were also observed with ASN100 therapy.

Potentiating Antibiotics with Cytotoxin-Neutralizing Monoclonal Antibodies in Lethal Murine and Rabbit Models of Staphylococcus aureus Pneumonia. Poster #102.

In these studies, Arsanis tested ASN100 as monotherapy and in combination with antibiotics in mouse and rabbit treatment models of *S. aureus* pneumonia. These studies demonstrated efficacy of ASN100 monotherapy and notably, when dosed in combination with antibiotics, potentiation of antibiotic efficacy, including efficacy of beta-lactam antibiotics against methicillin resistant *S. aureus* (MRSA) strains.

Both posters will be made available at www.arsanis.com.

About ASN100

ASN100 is a combination of two co-administered fully human monoclonal antibodies (mAbs), ASN-1 and ASN-2, that together neutralize the six cytotoxins critical to *S. aureus* pneumonia pathogenesis. ASN-1 neutralizes alpha-hemolysin (Hla), a cytotoxin that damages lung epithelial cells, and four leukocidins, cytotoxins that destroy human immune cells: gamma-hemolysin AB (HlgAB), gamma-hemolysin CB (HlgCB), Panton-Valentine

leukocidin (PVL), and leukocidin ED (LukED). ASN-2 neutralizes the fifth leukocidin, LukGH, a particularly potent human cytotoxin also responsible for the destruction of human immune cells. ASN100 is currently in a Phase 2 clinical trial for the prevention of *S. aureus* pneumonia in high-risk, mechanically ventilated patients, and has received Fast Track designation from the U.S. Food and Drug Administration (FDA).

About Arsanis, Inc.

Arsanis, Inc. is a clinical-stage biopharmaceutical company focused on applying monoclonal antibody (mAb) immunotherapies to address serious infectious diseases. A deep understanding of the pathogenesis of infection, paired with access to some of the most advanced mAb discovery techniques and platforms available today, has positioned Arsanis to build and advance a pipeline of novel mAbs with multiple mechanisms of action and high potency against their intended targets. The company's lead clinical program, ASN100, is aimed at serious *Staphylococcus aureus* infections and is being evaluated in a Phase 2 clinical study for the prevention of *S. aureus* pneumonia in high-risk, mechanically ventilated patients. In addition to ASN100, its preclinical pipeline is comprised of mAbs targeting multiple serious bacterial and viral pathogens, including respiratory syncytial virus, or RSV.

Arsanis is a U.S. company headquartered in Waltham, Massachusetts, with European research and preclinical development operations headquartered in Vienna, Austria (Arsanis Biosciences GmbH).

For more information, please visit the Arsanis website at www.arsanis.com.

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