European Respiratory Society
Annual Congress 2013

Abstract Number: 7249

Publication Number: P4136

Abstract Group: 5.1. Airway Pharmacology and Treatment

Keyword 1: Bronchiectasis **Keyword 2:** Treatments **Keyword 3:** Quality of life

Title: Two phase 3 placebo-controlled trials of aztreonam lysine for inhalation (AZLI) for non-cystic fibrosis bronchiectasis (NCFB)

Dr. Alan 1668 Barker barkera@ohsu.edu MD [1], Dr. Anne 1669 O'Donnell odonnela@georgetown.edu MD [2], Dr. Philip J. 1670 Thompson pjthomps@liwa.uwa.edu.au MD [3], Dr. Patrick 1671 Flume flumepa@musc.edu MD [4], Dr. Jonathan 1672 Ruzi aconly@cox.net MD [5], Prof. Dr Javier 1673 de Gracia jgracia@separ.es MD [6], Prof. Dr Wim 1679 Boersma w.boersma@mca.nl MD [7], Dr. Eva 1680 Polverino epolveri@clinic.ub.es MD [8], Dr. Lixin 1681 Shao lixin.shao@gilead.com MD [9], Dr. Jenny 1682 Zhang jenny.zhang@gilead.com [9], Mrs. Sheila 1683 Leitzinger sheila.leitzinger@gilead.com [10], Mrs. Laura 1690 Haas laura.haas@gilead.com [10], Dr. Matt 1694 McKevitt matt.mckevitt@gilead.com [10], Dr. A. Bruce 1697 Montgomery bruce.montgomery@cardeaspharma.com MD [11], Dr. Alexandra 1700 Quittner aquittner@miami.edu [12], Dr. David 1701 Gossage david.gossage@gilead.com MD [10] and Dr. Thomas 1758 O'Riordan thomas.oriordan@gilead.com MD [10]. [1] Pulmonary and Critical Care, Oregon Health and Science University, Portland, OR, United States ; [2] Division of Pulmonary, Critical Care and Sleep Medicine, Georgetown University Medical Center, Washington DC, United States ; [3] Lung Institute of Western Australia, Sir Charles Gairdner Hospital, Nedlands, WA, Australia ; [4] Pulmonary & Critical Care Medicine, Medical University of South Carolina, Charleston, SC, United States ; [5] Pulmonary Medicine, AZ Pulmonary Specialists, LTD, Scottsdale, AZ, United States ; [6] Servicio Neumologia, Hospital Vall d'Hebrón-Servicio Neumologia, Barcelona, Spain ; [7] Department of Pulmonology, Medical Center Alkmaar, Alkmaar, Netherlands ; [8] Servei de Neumologia, Hospital Clinic i Provincial-Servicio de Neumologia, Barcelona, Spain ; [9] Biostatistics, Gilead Sciences, Inc., Foster City, CA, United States ; [10] Clinical Research, Gilead Sciences, Inc., Seattle, WA, United States ; [11] CEO, Cardeas Pharma, Seattle, WA, United States and [12] Department of Psychology, University of Miami, Miami, FL, United States .

Body: INTRODUCTION:We report the results of AIR-BX 1 and AIR-BX2, two randomized, double-blind, placebo-controlled international trials of AZLI in NCFB with 266 and 273 randomized subjects respectively. The primary endpoint was change in respiratory symptoms using a new, disease-specific health-related quality of life tool, Quality of Life-Bronchiectasis (QOL-B), following one course of therapy (ΔQOLB Day 28). Secondary endpoints were change in (ΔQOLB Day 84) after a second course of therapy and time to first protocol-defined exacerbation (PDE). METHODS: Subjects received 75 mg of AZLI TID or placebo via an eFlow nebulizer for two 28-day on/off cycles for a total of 112 days of observation. Inclusion criteria included confirmation of bronchiectasis by high resolution CT, presence of a target gram negative organism in sputum culture at screening and an FEV1 of ≥20% predicted. RESULTS: AIR-BX1 did not meet statistical significance for the primary endpoint of ΔQOLB at Day 28 (p=0.68) while AIR-BX2 did (p=0.011), although

the magnitude of change relative to placebo was less than the minimal importance difference, calculated by anchor and distribution-based methods (7.8-9.3 points). Both studies failed to achieve a significant ΔQOLB at Day 84 and time to first PDE. AZLI treatment decreased bacterial burden in both studies. AEs and SAEs were more frequent in AZLI versus placebo arms in both studies, with a larger difference seen in AIR-BX1. CONCLUSIONS: AZLI did not provide significant clinical benefit in NCFB as measured by symptom score and time to PDE.