Data presented on Pleuromutilin Antibiotic BC-3781

Nabriva Therapeutics Presented Data on Potency, Safety, Tolerability and Pharmacokinetics of Pleuromutilin Antibiotic BC-3781

Five Posters Presented at ICAAC, Denver, CO, Sept. 10-13, 2013

Vienna, Austria, September 13 2013 - Nabriva Therapeutics AG, a biotechnology company focused on developing pleuromutilins, a new class of antibiotics for serious infections caused by resistant pathogens, today announced the presentation of five posters on BC-3781, a novel pleuromutilin antibiotic in the development for oral and intravenous administration for the treatment of severe infections, at the 53rd Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC) in Denver, Colorado, USA. The studies further support the development of BC-3781 to treat complicated bacterial skin and respiratory infections and sexually transmitted diseases (STD). Results of this work were presented on September 10th and 12th at ICAAC.

Dr. William Prince, Nabriva's Chief Medical Officer said: "To date more than 400 people have been treated with BC-3781 administered intravenously or orally. Sixteen clinical Phase 1 studies and one Phase 2 study in patients with complicated skin and skin structure infections demonstrated the safety and efficacy of BC-3781. The pleuromutilin antibiotic is well tolerated and shows a good safety profile irrespective of the administration route. The presented Phase 1 study 'Safety, Tolerability and Pharmacokinetics of Orally Administered BC-3781, a Novel Antimicrobial' demonstrated the suitability of the pleuromutilin for oral administration, allowing for a potential switch from intravenous to oral delivery in a planned Phase 3 clinical study"

The following posters were presented:

Safety, Tolerability and Pharmacokinetics of Orally Administered BC-3781, a Novel Antimicrobial
W.W. Wicha, C. Lell, D.B. Strickmann, W. Heilmayer, Z. Ivezic-Schoenfeld, W.T. Prince
Poster # A-012

After administration as a 600 mg IR-tablet BC3781 was rapidly absorbed and well tolerated. The exposure after a single oral dose in terms of AUC was similar to that observed after single doses of 150 mg i.v. BC-3781 in Phase 1 studies and in patients with ABSSSI. Food caused a small reduction in $AUC_{0\text{-}inf}$. Based on the data obtained, switch therapy using 150 mg i.v. followed by 600 mg oral is possible.

Comparative Pharmacodynamics of BC-3781 in Murine *Streptococcus pneumoniae* Thigh and Lung Infection Models
W.W. Wicha, E. Fischer, B. Kappes, Z. Ivezic-Schoenfeld
Poster # A-013

BC-3781 showed good activity against *S. pneumoniae* infections with an enhanced activity in lung tissues, compared to thigh. The PKPD information obtained in this study would support a study against respiratory tract infections and provides a robust basis for target attainment analysis.

***In Vitro* Synergy/Antagonism Of The Pleuromutilin BC-3781 With Selected Antibiotics Against Grampositive And Gramnegative Bacteria**
S. Paukner, A. Stoneburner, Z. Ivezic-Schoenfeld, C. Pillar
Poster # E-1161

Overall, BC-3781 was confirmed to have largely 'no interaction', neither antagonism nor synergy, when combined with other antibiotics against Gram-positive or Gram-negative organisms, including those with important resistance phenotypes (e.g. MRSA and ESBL) suggesting that there is no potential issue for combination therapy when Gram-negative coverage is necessary.

Accumulation of the Pleuromutilin Antibiotic BC-3781 in Murine Macrophages and Effect of Lung Surfactant on the BC3781 *In Vitro* Activity
S. Paukner, K. Krause, A. Gruss, T. Keepers, M.Gomez, A. Bischinger, D.B. Strickmann, Z. Ivezic-Schoenfeld
Poster # A-011

Overall, BC-3781 accumulated in murine macrophages at clinically relevant extraceulluar concentrations and the antimicrobial potency of BC-3781 was unaffected by lung surfactant. Together with the high tissue penetration into the lung, these data support the investigation of BC-3781 in bacterial pneumonia.

***In Vitro* Activity Of The Novel Pleuromutilin BC-3781 Tested Against Bacterial Pathogens Causing Sexually Transmitted Diseases (STD)**
S. Paukner, A. Gruss, T. R. Fritsche, Z. Ivezic-Schoenfeld, R. N. Jones
Poster # E-1183

Overall, BC-3781 displayed potent activity against the most relevant bacterial pathogens causing STD warranting further investigations on the potential of BC-3781 in this indication.