

## Press release

# Basilea announces acquisition of preclinical antibiotics program from Spexis

- **Novel class of antibiotics**
- **Bactericidal activity demonstrated *in vitro* and *in vivo* against broad range of Gram-negative bacteria, including multidrug-resistant strains**

**Allschwil, Switzerland, January 15, 2024**

Basilea Pharmaceutica Ltd, Allschwil (SIX: BSLN), a commercial-stage biopharmaceutical company committed to meeting the needs of patients with severe bacterial and fungal infections, announced today that it has entered into an asset purchase agreement with Spexis AG (SIX: SPEX) for a preclinical program of antibiotics from a novel class, targeting Gram-negative bacteria, including multidrug-resistant strains.<sup>1</sup>

Dr. Laurenz Kellenberger, Chief Scientific Officer of Basilea, said: “The acquired antibiotics are of a novel class, targeting the lipopolysaccharide transport in Gram-negative bacteria, which have been highlighted by the World Health Organization as priority pathogens against which new antibiotics are urgently needed. The convincing potent and rapid bactericidal activity against bacteria such as *Escherichia coli* or *Klebsiella pneumoniae*, including multidrug-resistant species, and the activity in infection models, is very encouraging. We are excited by the addition of this new program to our growing pipeline and to continue the development of this targeted antibiotics class, which has the potential to address an unmet medical need in the treatment of severe bacterial infections in the hospital.”

The antibiotics were developed within Spexis’ Outer Membrane Protein Targeting Antibiotics (OMPTA) program and selectively disrupt the lipopolysaccharide transport bridge, an essential structure in Gram-negative bacteria. This results in a loss of the integrity of the outer cell membrane, intracellular accumulation of lipopolysaccharides and killing of the bacteria. Activity has been shown *in vitro* and *in vivo* against Enterobacteriaceae such as *E. coli* and *K. pneumoniae*, including strains resistant to beta-lactams and colistin, an antibiotic regarded as last-resort therapy. The program was funded in part by CARB-X (Combating Antibiotic-Resistant Bacteria Biopharmaceutical Accelerator).<sup>2</sup> This underscores the potential of this novel class of antibiotics. CARB-X is a global non-profit partnership dedicated to supporting early-stage antibacterial research and development, to address the rising threat of drug-resistant bacteria.

Basilea is acquiring all program compounds, know-how and intellectual property and is paying Spexis up to a total of CHF 2 million, which consists of an upfront payment, a payment related to the transfer of the assets to Basilea, and a potential final milestone payment related to the availability of near-term external funding for the further development of the program. In addition,



Basilea assumes the rights and obligations of Spexis, including potential low single-digit percentage royalties on sales, under licensing agreements. The transaction is subject to the approval by the Western District Court of the Canton Basel-Landschaft.

### **About multidrug-resistant Gram-negative bacteria**

Infections by multidrug-resistant Gram-negative bacteria (GNB) are a major challenge for healthcare professionals. Due to an additional outer cell membrane compared to Gram-positive bacteria, it is more difficult for antibiotics to get into the cell. In addition, this outer membrane carries lipopolysaccharides/endotoxins which induce inflammation and play an important amplifying role in the pathogenesis of infections by GNB and are therefore considered an important virulence factor. Moreover, GNB can acquire resistance to several classes of antibiotics such as carbapenems, fluoroquinolones, tetracyclines and earlier-generation cephalosporins, making infections with GNBs particularly difficult to treat. In 2017, the World Health Organization published a list of 12 classes of priority bacterial pathogens that pose the greatest threat to human health, of which nine classes are Gram-negative.<sup>3</sup>

### **About Basilea**

Basilea is a commercial-stage biopharmaceutical company founded in 2000 and headquartered in Switzerland. We are committed to discovering, developing and commercializing innovative drugs to meet the needs of patients with severe bacterial and fungal infections. We have successfully launched two hospital brands, Cresemba for the treatment of invasive fungal infections and Zevtera for the treatment of bacterial infections. In addition, we have preclinical and clinical anti-infective assets in our portfolio. Basilea is listed on the SIX Swiss Exchange (SIX: BSLN). Please visit [basilea.com](http://basilea.com).

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This press release can be downloaded from [www.basilea.com](http://www.basilea.com).

**References**

1. M. Schuster, E. Brabet, K. K. Oi et al. Peptidomimetic antibiotics disrupt the lipopolysaccharide transport bridge of drug-resistant Enterobacteriaceae. *Science Advances* 2023 (9), eadg3683
2. Research reported in this press release is supported by CARB-X. CARB-X's funding for this project is provided in part with federal funds from the US Department of Health and Human Services; Administration for Strategic Preparedness and Response; Biomedical Advanced Research and Development Authority; under agreement number 75A50122C00028; and by awards from Wellcome (WT224842) and Germany's Federal Ministry of Education and Research (BMBF). The content of this press release is solely the responsibility of the authors and does not necessarily represent the official views of CARB-X or any of its funders.
3. <https://www.who.int/news/item/27-02-2017-who-publishes-list-of-bacteria-for-which-new-antibiotics-are-urgently-needed> (Accessed: January 14, 2024)