



Execution of Sublicense Agreement with JEIL for New Siderophore Cephalosporin Antibacterial Drug Cefiderocol in South Korea

OSAKA, Japan, July 28, 2022 - Shionogi & Co., Ltd. (Head Office: Osaka, Japan; Chief Executive Officer: Isao Teshirogi, Ph.D.; hereafter "Shionogi") announced that Ping An-Shionogi (Hong Kong) Limited (Head Office: Hong Kong, China; Chairman and Chief Executive Officer: Tatsumori Yoshida; hereafter "Ping An-Shionogi Hong Kong") and JEIL PHARMACEUTICAL CO.,LTD. (Head Office: Seoul, South Korea; Chief Executive Officer: Suk Je Sung hereafter "JEIL") signed the sublicense agreement regarding development and commercialization of new siderophore cephalosporin antibacterial drug cefiderocol in South Korea.

Antimicrobial resistance (AMR) is called the "silent pandemic" and is an urgent and important public health threat. It is estimated to cause over 10 million deaths by 2050 if approaches to address AMR will not change¹. The number of effective medicines available for AMR bacteria infection is limited, and AMR bacteria infection is one of the disease areas with high unmet medical needs. With the sublicense agreement, cefiderocol is expected to become new treatment option for Korean patients suffering from AMR bacteria infection.

Ping An-Shionogi Hong Kong has exclusive development and commercialization rights for cefiderocol in Asian territories, excluding Japan, under license agreement with Shionogi². With the sublicense agreement, Ping An-Shionogi Hong Kong granted JEIL exclusive license to develop and commercialize cefiderocol in South Korea. With this contract, Ping An-Shionogi Hong Kong received one-time payment and will receive milestones according to future development progress, and certain amount of income according to supply to JEIL, under the sublicense agreement.

About Shionogi

Shionogi & Co., Ltd. is a leading global research-driven pharmaceutical company based in Japan, dedicated to bringing benefits to patients based on its corporate philosophy of "supplying the best possible medicine to protect the health and wellbeing of the patients we serve." The company has discovered and developed novel medicines for HIV, influenza and antimicrobial resistance, and currently markets products in several therapeutic areas including anti-infectives with the first siderophore cephalosporin, cefiderocol. For more information, please visit <https://www.shionogi.com/global/en/>.

About Ping An-Shionogi Hong Kong

Ping An-Shionogi Hong Kong is established in 2020 as a joint venture between Shionogi Hong Kong and Tutum Japan Healthcare Limited, a subsidiary of China Ping An Insurance Overseas (Holdings) Limited and an indirect subsidiary of Ping An Insurance (Group) Company of China Ltd. Its main businesses are capital

investment, intellectual property license management, and product supply operations to Asian countries including China.

About JEIL

Founded in 1959, JEIL has been listed on KOSPI since 1988 and as one of the major local pharmaceutical company in Korea, has contributed to the growth and development of the Korean pharmaceutical industry by developing and supplying superior medicine. JEIL has technical alliances with pharmaceutical companies around the world and is recognized as an advanced pharmaceutical company that adapts to internationalized business practices. For more information, please visit

https://www.jeilpharm.co.kr/english/intro_companyprofile.asp.

About cefiderocol

Cefiderocol for injection is the first and only siderophore cephalosporin antibiotic for the treatment of serious Gram-negative infections. It has a novel mechanism for penetrating the outer cell membrane of Gram-negative pathogens by acting as a siderophore. In addition to entering cells by passive diffusion through porin channels, cefiderocol binds to ferric iron and is actively transported into bacterial cells through the outer membrane via the bacterial iron transporters, which function to incorporate this essential nutrient for bacteria. These mechanisms allow cefiderocol to achieve high concentrations in the periplasmic space where it can bind to penicillin-binding proteins and inhibit cell wall synthesis in the bacterial cells. Cefiderocol has also demonstrated in vitro activity against certain bacteria that contain problematic resistant enzymes such as ESBLs, AmpC, and serine- and metallo-carbapenemases. Data from multinational surveillance studies for cefiderocol demonstrated potent in vitro activity against a wide spectrum of Gram-negative pathogens including carbapenem-resistant *A. baumannii* complex, *P. aeruginosa*, enterobacterales and *S. maltophilia*. The clinical significance of the in vitro data is unknown. Cefiderocol has no clinically relevant in vitro activity against most Gram-positive bacteria and anaerobic bacteria. Cefiderocol was approved and launched in the United States (product name: FETROJA[®]) in November 2019 and in Europe (product name: FETCROJA[®]) in April 2020^{3,4}.

Forward-Looking Statements

This announcement contains forward-looking statements. These statements are based on expectations in light of the information currently available, assumptions that are subject to risks and uncertainties which could cause actual results to differ materially from these statements. Risks and uncertainties include general domestic and international economic conditions such as general industry and market conditions, and changes of interest rate and currency exchange rate. These risks and uncertainties particularly apply with respect to product-related forward-looking statements. Product risks and uncertainties include, but are not limited to, completion and discontinuation of clinical trials; obtaining regulatory approvals; claims and concerns about product safety and efficacy; technological advances; adverse outcome of important litigation; domestic and foreign healthcare reforms and changes of laws and regulations. Also for existing products, there are manufacturing and marketing risks, which include, but are not limited to, inability to build production capacity to meet demand, lack of availability of raw materials and entry of competitive products. The company disclaims any intention or obligation to update or revise any forward-looking statements whether as a result of new information, future events or otherwise.

Reference

- 1 . O'Neill J. 'Tackling Drug-Resistant Infections Globally: Final Report and Recommendations'. Review on Antimicrobial Resistance. May 2016. Retrieved from https://amr-review.org/sites/default/files/160525_Final%20paper_with%20cover.pdf
- 2 . [July 13, 2020 Press Release](#)
Notice Regarding the Signing of the Agreements on the Establishment of the Joint Ventures with Ping An Insurance, the Establishment of a New Subsidiary, the Signing of the Agreements on Transfer of Subsidiary Shares and Equity Stakes, and the Disposal of Treasury Shares by Way of Third-Party Allotment
- 3 . [February 25, 2020 Press Release](#)
Shionogi's FETROJA[®] (cefiderocol) Now Available for the Treatment of Complicated Urinary Tract Infections in the U.S.
- 4 . [April 28, 2020 Press Release](#)
SHIONOGI RECEIVES EUROPEAN COMMISSION MARKETING AUTHORISATION FOR FETCROJA[®] (CEFIDEROCOL) FOR THE TREATMENT OF INFECTIONS DUE TO AEROBIC GRAM-NEGATIVE BACTERIA IN ADULTS WITH LIMITED TREATMENT OPTIONS

For Further Information, Contact:

SHIONOGI Website Inquiry Form : <https://www.shionogi.com/global/en/contact.html>