## Press Release SHIONOGI



### SHIONOGI and Ube Industries Entered into Strategic Research Collaboration for Novel Anti-RS Virus Drug Candidates

**OSAKA, Japan and YAMAGUCHI, Japan. December 10, 2018 -** Shionogi & Co., Ltd. (Head Office: Osaka, Japan; President & CEO: Isao Teshirogi, Ph.D.; hereafter "Shionogi") and Ube Industries, Ltd. (Head Office: Yamaguchi, Japan; President & Representative Director: Yuzuru Yamamoto; hereafter "Ube Industries"), today announced the conclusion of the strategic research collaboration agreement for novel anti-RS (respiratory syncytial) virus drug candidates.

Almost all people develop Respiratory Syncytial Virus (RSV) infection at least once before reaching two years of age and are repeatedly infected with RSV throughout life. According to the National Institute of Infectious Diseases, particularly from several weeks to several months after birth, despite the presence of maternal antibody, RSV can cause serious symptoms, mainly lower airway inflammation. Because there are currently no anti-RSV products available, unmet medical need for safe and effective drugs to treat RSV infection is high.

Shionogi and Ube Industries have strengths in the research and development of new chemical entities of small molecules. Based on Shionogi's drug discovery in the infectious disease area and Ube Industries' drug design supported by organic synthesis capabilities, both companies will produce a synergistic effect on SAR (Structure-Activity Relationship) study and strive to provide best possible anti-RS virus drugs to patients as early as possible, combining both companies' strengths to generate drug candidates. Both companies will aim to create an innovation by collaborative research.

#### About Shionogi & Co., Ltd.

Shionogi's research and development efforts target infectious diseases as one of its priority therapeutic areas, and Shionogi has positioned "protecting people from the threat of infectious diseases" as one of its core social missions. Shionogi strives constantly to bring forth innovative drugs for the treatment of infectious diseases, to protect the health and well being of the many patients we serve. For more details, please visit <u>http://www.shionogi.co.jp</u>

#### About Ube Industries, Ltd.

Ube Industries, Ltd. is a chemistry-focused company engaged in the areas of pharmaceuticals, construction materials, machinery, energy and environment. In our pharmaceutical business, we particularly focus on producing a new drug from our region with abundant technological innovation and aim to contribute to better health for everyone. To allow us to contribute to

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progress of medication, we will continue our efforts to produce the seeds for new drugs based on both "Drug Discovery" through our own and collaboration research projects and "Manufacture and Supply of API\* and Intermediates". For more detailed information on Ube Industries, please visit our website. <u>http://www.ube.co.jp</u> \*: Active Pharmaceutical Ingredient

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