



April 25, 2019

J-Pharma Co., Ltd.

Conclusion of Licensing and Joint Development Contract for Novel Agent for Biliary Tract Cancer

We are pleased to inform you that J-Pharma Co., Ltd. (Head office: Yokohama, Kanagawa Prefecture, Japan. Executive Chairman: Hitoshi Endou, President and CEO: Masuhiro Yoshitake) concluded a licensing and joint development contract for the novel compound JPH203 with Ohara Pharmaceutical Co., Ltd. (Head office: Koka, Shiga Prefecture, Japan. CEO: Seiji Ohara) on April 25, 2019.

With the conclusion of this contract Ohara Pharmaceutical acquires the rights to research, develop, market, and manufacture JPH203 as a treatment for advanced biliary tract cancer in Japan, China, and certain countries of Asia and Africa. J-Pharma will receive an up-front payment, development milestone payments, and royalties linked to sales of JPH203. At the same time Ohara Pharmaceutical will subscribe for shares in the next fund raising round organized by J-Pharma.

JPH203 is a novel small-molecular chemical compound that induces apoptosis of tumor cells by selectively inhibiting amino acid uptake via L-type Amino Acid Transporter 1(LAT1). LAT1 is specifically expressed on the membrane of tumor cells. A Phase I clinical study in patients with advanced solid tumors showed adequate tolerability and suggested that JPH203 would be effective for biliary tract cancer. A Phase II clinical study in patients with advanced biliary tract cancer is currently underway.

J-Pharma will continue to focus on research and development of its own proprietary, innovative medicines in areas with high unmet medical needs.

[About J-Pharma Co., Ltd.]

J-Pharma Co., Ltd. is a biotech venture focusing on the development of drugs targeting “transporters.” Transporters are proteins present mainly in the cell membrane responsible for transporting substances in and out of the cell. There are very few drugs commercially available in this field. J-Pharma’s mission is to discover and develop drugs that target transporters, and our goal is to create a comprehensive care system that incorporates both diagnosis and treatment. Anti-cancer drugs targeting LAT1 including JPH203 and OKY-034 as well as LAT1-targeted PET diagnostics NKO-028 are currently in development.

For details, please see <http://www.j-pharma.com>.

[About Ohara Pharmaceutical Co., Ltd.]

Ohara Pharmaceutical Co., Ltd. is a pharmaceutical company focusing on the businesses of orphan drugs and generic drugs. Its mid-term 3-year business plan started in FY2018 under the catchphrase “Challenge 2020,” with the key objective of “addressing unmet medical needs,” to advance management innovations and make the next leap forward. The company focuses on the development and marketing of orphan drugs mainly in the field of pediatric oncology and on the development, manufacture and marketing of generic drugs that give extra consideration to the prevention of medical accidents. Ohara plans to further expand these businesses into emerging countries, primarily in the Asian and African regions.

For details, please visit <https://www.ohara-ch.co.jp/english/>

[About Amino Acid Transporter LAT1]

Amino acid transporters are present on the cell membrane and serve as nutrient transporters that carry nutrients and other substances into the cell from outside the cell. LAT1, an amino acid transporter that is selectively expressed on the membrane of tumor cells and transports neutral amino acids having large side chains, including many essential amino acids. LAT1 expression is increased when the normal cells become malignancy in many types of cancer, including cancers of the colon, lung, prostate, stomach, breast, pancreas, kidney, larynx, esophagus, and brain. It has been reported that patients with many cancers, including pancreatic cancer, who show high levels of LAT1 expression have a poor prognosis.

[About Biliary Tract Cancer]

The annual mortality rate from biliary tract cancer is approximately 18,000 people in Japan and has been increasing in recent years¹. At present, no

recommended second-line chemotherapy has been established for patients with biliary tract cancer refractory to standard chemotherapy, and a great need exists for such a second-line chemotherapy².

1. Population Survey Report (Japanese Minister of Health Labour and Welfare, Chief Cabinet Secretary, Statistics and Information Department). Cancer Mortality Data from Population Survey Report (1958 to 2016)
2. Japanese Society of Hepato-Biliary-Pancreatic Surgery, Publishing committee of the evidence-based clinical practice guidelines for the management of biliary tract cancers of the Japanese Society of Hepato-Biliary-Pancreatic Surgery. Clinical practice guidelines for the management of biliary tract cancers (2014)

◆ For inquiries regarding this news release ◆

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