

Chugai to In-license ROS1/TRK Inhibitor Entrectinib

TOKYO, July 17, 2018 -- <u>Chugai Pharmaceutical Co., Ltd.</u> (TOKYO: 4519) announced that it has entered into a license agreement with <u>F. Hoffmann-La Roche, Ltd.</u> for the ROS1/TRK inhibitor entrectinib (Development Code: RG6268), which is under development for tumors that harbor *ROS1* or *NTRK* fusions.

Under the terms of agreement, Chugai obtains exclusive rights for the development and marketing of entrectinib in Japan, and will make upfront and milestone payments to Roche.

Entrectinib is an orally bioavailable CNS-active tyrosine kinase inhibitor that potently and selectively inhibits the ROS1 (c-ros oncogene 1) and TRK (tropomyosin receptor kinase) family. Entrectinib targets *ROS1* fusion gene positive non-small cell lung cancer and *NTRK* fusion gene positive solid tumors. Currently, Roche is conducting a global phase II clinical study (The STARTRK-2 study). Entrectinib has been granted Breakthrough Therapy Designation by the U.S. Food and Drug Administration (FDA) in May 2017 and PRIME (PRIority MEdicines) Designation by the European Medicines Agency (EMA) in October 2017 for the treatment of *NTRK* fusion positive solid tumors. In Japan, entrectinib also received the Sakigake Designation by the Ministry of Health, Labour and Welfare in March 2018.

To date, Chugai has made contributions to healthcare through the launches of innovative anticancer agents. With the addition of the ROS1/TRK inhibitor entrectinib to our product portfolio, Chugai's strength as a leading pharmaceutical company in the area of oncology will be enriched, enabling Chugai to make greater contributions to the advancement of cancer treatment.

Chugai is committed to continuing its efforts to meet unmet medical needs by effectively utilizing the research and development resources of Roche to find innovative new drugs.

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About ROS1 fusion gene positive non-small cell lung cancer

ROS1 fusion gene is an abnormal gene that can be formed by fusing the ROS1 gene and other genes (CD74, etc.) as a result of chromosomal translocation for some reason. The ROS1 fusion kinase made from ROS1 fusion gene is thought to promote cancer cell proliferation. ROS1 fusion gene is found in about one to two percent of non-small cell lung cancer, among which it is more expressed in adenocarcinoma.

About NTRK fusion gene positive cancer

NTRK fusion gene is an abnormal gene that can be formed by fusing the NTRK genes (NTRK1, NTRK2, NTRK3 encode TRKA, TRKB, TRKC protein, respectively) and other genes (ETV6, LMNA, TPM3, etc.) as a result of chromosomal translocation. The TRK fusion kinase made from NTRK fusion gene is thought to promote cancer cell proliferation. There is very rare expression of NTRK fusion but in various adult and pediatric solid tumors, including appendiceal cancer, breast cancer, cholangiocarcinoma, colorectal cancer, gastrointestinal stromal tumor (GIST), infantile fibrosarcoma, lung cancer, mammary analogue secretory carcinoma of the salivary gland, melanoma, pancreatic cancer, thyroid cancer, and various sarcomas.

About Sakigake Designation

Sakigake aims at shortening pre-market review period for innovative medical products that satisfy certain criteria by designating such products during the early stages of development, and providing prioritized consultation services and substantial pre-application consultation. By taking advantage of the benefits offered by Sakigake, the target review period for the designated products will be reduced to as short as 6 months.