Innovation all for the patients

CHUGAI

Roche A member of the Roche group

Chugai Files an Application for Expanded Use of Genomic Mutation Analysis Program "FoundationOne® CDx Cancer Genomic Profile"

-- Aiming to develop a companion diagnostic for entrectinib --

TOKYO, January 18, 2019 -- Chugai Pharmaceutical Co., Ltd. (TOKYO: 4519) announced today that it filed an application with the Ministry of Health, Labour and Welfare (MHLW) for expanded use of "FoundationOne® CDx Cancer Genomic Profile," a next-generation sequencing based program currently under preparation for launch, to include a companion diagnostic for the drug candidate entrectinib. Entrectinib is currently under regulatory review for the treatment of *NTRK* fusion-positive solid tumors.

FoundationOne CDx Cancer Genomic Profile is a next-generation sequencing based *in vitro* diagnostic device for the detection of substitutions, insertion and deletion alterations, and copy number alterations in 324 genes and select gene rearrangements, as well as genomic signatures including microsatellite instability (MSI) and tumor mutational burden (TMB) using DNA isolated from formalin-fixed, paraffin-embedded (FFPE) tumor tissue specimens. The program was approved by the MHLW in December 2018 as the first cancer genomic test in Japan with the two functions of cancer genomic profiling and companion diagnostics for molecular-targeted drugs.

The filing aims to expand the program for use as a companion diagnostic to identify people likely to benefit from entrectinib by detecting *NTRK* fusion genes (fusion genes between *NTRK1*, *NTRK2*, *NTRK3* and other genes). Chugai filed a regulatory application for entrectinib to obtain approval for the treatment of very rare *NTRK* fusion-positive solid tumors in December 2018. The drug was granted both *Sakigake* designation and orphan drug designation in Japan.

As a leading company in the field of oncology, Chugai is committed to realize advanced personalized oncology care and contribute to patients and healthcare professionals through improving access to comprehensive genomic profiling.

[Notes]

A press release issued on December 27, 2018: Chugai Obtains Approval for Genomic Mutation Analysis Program "FoundationOne® CDx Cancer Genomic Profile"
https://www.chugai-pharm.co.jp/english/news/detail/20181227163000_583.html

A press release issued on December 19, 2018: Chugai Files a New Drug Application for a ROS1/TRK Inhibitor Entrectinib for the Treatment of *NTRK* Fusion-Positive Solid Tumors
https://www.chugai-pharm.co.jp/english/news/detail/20181219170000_579.html

CHUGAI PHARMACEUTICAL CO., LTD. Corporate Communications Dept.
1-1, Nihonbashi-Muromachi 2-chome, Chuo-ku Tokyo, 103-8324 Japan
Media Relations Group TEL: +81-(0)3-3273-0881 E-mail: pr@chugai-pharm.co.jp
Investor Relations Group TEL: +81-(0)3-3273-0554 E-mail: ir@chugai-pharm.co.jp

About FoundationOne CDx Cancer Genomic Profile

FoundationOne CDx Cancer Genomic Profile is a next-generation sequencing based *in vitro* diagnostic device for the detection of substitutions, insertion and deletion alterations, and copy number alterations in 324 genes and select gene rearrangements, as well as genomic signatures including microsatellite instability (MSI) and tumor mutational burden (TMB) using DNA isolated from formalin-fixed, paraffin-embedded (FFPE) tumor tissue specimens. FoundationOne CDx Cancer Genomic Profile is intended to be used as a comprehensive companion diagnostic for patients with certain types of cancers to identify those patients that may benefit from approved molecular targeted therapies in Japan.

About entrectinib

Entrectinib is an investigational, oral medicine in development for the treatment of locally advanced or metastatic solid tumors that harbor *NTRK1/2/3* or *ROS1* gene fusions. It is a selective, CNS-active tyrosine kinase inhibitor designed to inhibit the kinase activity of the TRK A/B/C and ROS1 proteins, whose activating fusions drive proliferation in certain types of cancer. Entrectinib can block ROS1 and NTRK kinase activity and inhibit proliferation of cancer cells with *ROS1* or *NTRK* gene fusions. Entrectinib is being investigated across a range of solid tumor types, including breast, cholangiocarcinoma, colorectal, gynaecological, neuroendocrine, non-small cell lung, salivary gland, pancreatic, sarcoma and thyroid cancers.

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.

###