

# Press Release

# Daiichi Sankyo Initiates Phase 1/2 Study of Novel Antibody Drug Conjugate U3-1402 in Patients with HER3-Positive Metastatic or Unresectable Breast Cancer

- Patients with metastatic breast cancer have poor prognosis with no standard later-line or salvage treatments
- Preclinical studies in human xenograft mouse models of novel HER3-targeting antibody drug conjugate U3-1402 showed regression in tumors with high HER3 expression
- Second antibody drug conjugate using Daiichi Sankyo proprietary linker-payload technology enters clinical development

**Tokyo, Japan and Parsippany, N.J.** – (**January 18, 2017**) – Daiichi Sankyo Company, Limited (hereafter, Daiichi Sankyo) announced today the initiation of a three-part open-label phase 1/2 study in Japan with U3-1402, a novel HER3-targeting antibody drug conjugate, in patients with HER3-positive metastatic or unresectable breast cancer who are refractory or intolerant to standard treatment, or for whom no standard treatment is available.

U3-1402, the second clinical-stage investigational antibody drug conjugate in the Daiichi Sankyo Cancer Enterprise pipeline, comprises a humanized anti-HER3 antibody attached by a peptide linker to a novel topoisomerase I inhibitor (DXd) payload, utilizing Daiichi Sankyo's proprietary payload and linker-payload technologies. U3-1402 achieves a Drug-Antibody Ratio (DAR) near 8, meaning nearly eight molecules of DXd are attached per antibody.

"While treatment for patients with metastatic HER2-negative breast cancer has gradually improved over the past several years, there is still need for improvement, particularly by developing targeted therapies," said Antoine Yver, MD, MSc, Executive Vice President and Global Head, Oncology Research and Development, Daiichi Sankyo. "The purpose of this study is to determine whether delivering a cytotoxic agent via a HER3 monoclonal antibody could be an effective and safe approach to treating patients with HER3-overexpressing breast cancer."

# **About the Study**

In this three-part open-label phase 1/2 study, U3-1402 will be given as an intravenous infusion every three weeks. The first part of the study (dose escalation) will assess the safety, tolerability and maximum tolerated dose of U3-1402 in HER3-positive metastatic breast cancer patients who are refractory or intolerant to standard treatment, or for whom no standard treatment is available. The second part of the study (dose-finding) will assess the safety and efficacy of U3-1402 and determine the recommended phase 2 dose in HER3-positive metastatic breast cancer patients who have received six or fewer prior chemotherapy regimens. The third part of the study (phase 2) will assess the safety and efficacy of the

recommended dose of U3-1402 in HER3-positive metastatic breast cancer patients who have received six or fewer prior chemotherapy regimens. Additional trial information is available at <u>ClinicalTrials.gov</u>.

#### **About HER3-Positive Metastatic Breast Cancer**

Breast cancer is typically classified and treated based on one of three types of biomarker status classifications: hormone-receptor positive (HR+), where the tumor cells contain either estrogen receptors (ER) or progesterone receptors (PR); HER2-positive (HER2+), where the tumor cells overexpress HER2; and triple negative, where the tumor cells do not have estrogen or progesterone receptors and are HER2-negative. However, human epidermal growth factor receptor 3 (known as HER3 or ERBB3) is a tyrosine kinase receptor that is increasingly being recognized as important to tumor growth in certain cancers including breast cancer. Patients living with invasive breast cancer with high levels of HER3 face a significantly worse prognosis and decreased survival, and to date there is no approved HER3 directed precision medicine therapy option.<sup>3</sup>

# About Daiichi Sankyo Cancer Enterprise

The vision of Daiichi Sankyo Cancer Enterprise is to leverage our world-class, innovative science and push beyond traditional thinking in order to create meaningful treatments for patients with cancer. We are dedicated to transforming science into value for patients, and this sense of obligation informs everything we do. Anchored by our Antibody Drug Conjugate (ADC) and Acute Myeloid Leukemia (AML) franchises, our cancer pipeline includes more than 20 small molecules, monoclonal antibodies and ADCs stemming from our powerful research engines: our two laboratories for biologic/immuno-oncology and small molecules in Japan, and Plexxikon Inc., our small molecule structure-guided R&D center in Berkeley, CA. Compounds in development include: quizartinib, an oral FLT3 inhibitor, for FLT3-ITD+ AML; DS-8201, a HER2-targeting ADC, for HER2-expressing breast or gastric cancer or other HER2-expressing solid tumors; pexidartinib, an oral CSF-1R inhibitor, for tenosynovial giant cell tumor (TGCT), which is also being explored in a range of solid tumors in combination with the anti-PD1 immunotherapy, pembrolizumab; and tivantinib, an oral MET inhibitor, for second-line treatment of patients with MET-high hepatocellular carcinoma in partnership with ArQule, Inc.

## About Daiichi Sankyo

Daiichi Sankyo Group is dedicated to the creation and supply of innovative pharmaceutical products to address diversified, unmet medical needs of patients in both mature and emerging markets. With over 100 years of scientific expertise and a presence in more than 20 countries, Daiichi Sankyo and its 16,000 employees around the world draw upon a rich legacy of innovation and a robust pipeline of promising new medicines to help people. In addition to a strong portfolio of medicines for hypertension and thrombotic disorders, under the Group's 2025 Vision to become a "Global Pharma Innovator with a Competitive Advantage in Oncology," Daiichi Sankyo research and development is primarily focused on bringing forth novel therapies in oncology, including immuno-oncology, with additional focus on new

horizon areas, such as pain management, neurodegenerative diseases, heart and kidney diseases, and other rare diseases. For more information, please visit: <a href="www.daiichisankyo.com">www.daiichisankyo.com</a>. Daiichi Sankyo, Inc., headquartered in Parsippany, New Jersey, is a member of the Daiichi Sankyo Group. For more information on Daiichi Sankyo, Inc., please visit: <a href="www.dsi.com">www.dsi.com</a>.

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## References:

- 1. American Cancer Society: Breast Cancer Overview 2016.
- 2. Sithanandam G, et al. Cancer Gene Ther. 2008;15(7):413–48
- 3. Chiu, C et al. Annals of Surgery. 2010;251(6):11071116