Press Release

Patritumab Deruxtecan Demonstrated Statistically Significant Improvement in Progression-Free Survival Versus Doublet Chemotherapy in Patients with Locally Advanced or Metastatic EGFR-Mutated Non-Small Cell Lung Cancer in HERTHENA-Lung02 Phase 3 Trial

- Daiichi Sankyo and Merck's patritumab deruxtecan demonstrates a statistically significant progression-free survival improvement in this EGFR-mutated non-small cell lung cancer population with high unmet need following prior EGFR TKI treatment
- Discussions with global regulatory authorities to be initiated

Basking Ridge, NJ and Rahway, NJ – (September 17, 2024) – The HERTHENA-Lung02 phase 3 trial evaluating patritumab deruxtecan in patients with locally advanced or metastatic EGFR-mutated non-small cell lung cancer (NSCLC) who received prior EGFR tyrosine kinase inhibitor (TKI) treatment met its primary endpoint of progression-free survival (PFS), demonstrating a statistically significant improvement versus platinum plus pemetrexed induction chemotherapy followed by pemetrexed maintenance chemotherapy. Overall survival (OS) data were immature at the time of the analysis and the trial will continue to further assess OS, a secondary endpoint.

Patritumab deruxtecan is a specifically engineered potential first-in-class HER3 directed DXd antibody drug conjugate (ADC) discovered by Daiichi Sankyo (TSE: 4568) and being jointly developed by Daiichi Sankyo and Merck (NYSE: MRK), known as MSD outside of the United States and Canada.

NSCLC accounts for approximately 85% of all lung cancers worldwide with up to 70% of NSCLC cases diagnosed at an advanced stage and EGFR-activating mutations occur in 14% to 38% of all NSCLC tumors worldwide.[1,2,3] Following initial treatment for metastatic EGFR-mutated NSCLC with an EGFR TKI, many patients experience disease progression and currently available therapies in the second-line setting are limited, highlighting the need for new approaches to improve outcomes.[3,4]

Data from the HERTHENA-Lung02 trial will be presented at an upcoming medical meeting and shared with global regulatory authorities.

“These results from HERTHENA-Lung02 demonstrate the potential of patritumab deruxtecan to become an important treatment option for certain patients with EGFR-mutated non-small cell lung cancer with prior tyrosine kinase inhibitor treatment,” said Ken Takeshita, MD, Global Head, R&D, Daiichi Sankyo. “We plan to share these findings with regulatory authorities to discuss next steps.”

“We are encouraged by these results demonstrating a statistically significant progression-free survival improvement compared to platinum plus pemetrexed induction chemotherapy followed by pemetrexed maintenance chemotherapy in patients with locally advanced or metastatic EGFR-mutated non-small cell lung cancer who received prior tyrosine kinase inhibitor treatment,” said Marjorie Green, MD, Senior Vice President and Head of Oncology, Global Clinical Development, Merck Research Laboratories. “Together with Daiichi Sankyo, we are committed to helping patients with previously treated EGFR-mutated non-small cell lung cancer, where there is a high unmet need.”

The safety profile seen in HERTHENA-Lung02 was consistent with that observed for patritumab deruxtecan in previous lung cancer clinical trials with no new safety signals identified. The majority of interstitial lung disease (ILD) events were low grade (grade 1 and 2). There were two grade 5 ILD events observed.

About HERTHENA-Lung02

HERTHENA-Lung02 is a global, multicenter, open-label, phase 3 trial evaluating the efficacy and safety of patritumab deruxtecan (5.6 mg/kg every three weeks) versus four cycles of pemetrexed and platinum chemotherapy in patients with metastatic or locally advanced NSCLC with an EGFR-activating mutation (exon 19 deletion or L858R) after failure of third-generation (e.g., osimertinib, lazertinib, aumolertinib, alflutinib) EGFR TKI therapy. Patients in the comparator arm without disease progression after four cycles of pemetrexed and platinum chemotherapy are able to continue treatment with maintenance pemetrexed with no restriction on the number of cycles.

The primary endpoint of HERTHENA-Lung02 was PFS as assessed by blinded independent central review (BICR). Secondary endpoints included OS, objective response rate, duration of response, clinical benefit rate, time to response, disease control rate, and safety. Patients enrolled in the study underwent brain imaging to allow for assessment of intracranial endpoints, including intracranial PFS as assessed by BICR.

HERTHENA-Lung02 enrolled 586 patients in Asia, Europe, North America and Oceania. For more information about the trial, visit ClinicalTrials.gov.

About EGFR-Mutated Non-Small Cell Lung Cancer

Nearly 2.5 million lung cancer cases were diagnosed globally in 2022.[5] Lung cancer is the most common cancer and the leading cause of cancer-related deaths worldwide.[5] Approximately 85% of lung cancer is classified as NSCLC with EGFR-activating mutations occurring in 14% to 38% of all NSCLC tumors worldwide.[1,3] NSCLC is diagnosed at an advanced stage in up to 70% of patients and often has a poor prognosis with worsening outcomes after each line of subsequent therapy.[2,6]

Following initial treatment for metastatic EGFR-mutated NSCLC with an EGFR TKI, many patients experience disease progression and currently available therapies in the second-line setting are limited, highlighting the need for new approaches to improve outcomes.[3,4]

About HER3

HER3 is a member of the HER family of receptor tyrosine kinases.[7] It is estimated that about 83% of primary NSCLC tumors and 90% of advanced EGFR-mutated tumors express HER3 after prior EGFR TKI treatment.[8] HER3 is associated with poor treatment outcomes, including shorter relapse-free survival and significantly reduced survival.[9,10] There is currently no HER3 directed therapy approved for the treatment of any cancer.

About Patritumab Deruxtecan

Patritumab deruxtecan (HER3-DXd) is an investigational HER3 directed ADC. Designed using Daiichi Sankyo's proprietary DXd ADC Technology, patritumab deruxtecan is composed of a fully human anti-HER3 IgG1 monoclonal antibody attached to a number of topoisomerase I inhibitor payloads (an exatecan derivative, DXd) via tetrapeptide-based cleavable linkers.

Patritumab deruxtecan is currently being evaluated as both a monotherapy and in combination with other therapies in a global development program, which includes HERTHENA-Lung02, a phase 3 trial evaluating the efficacy and safety of patritumab deruxtecan versus pemetrexed plus platinum chemotherapy in patients with EGFR-mutated locally advanced or metastatic NSCLC following disease progression on or after treatment with a third-generation EGFR TKI; HERTHENA-Lung01, a phase 2 trial in metastatic or locally advanced NSCLC with an activating EGFR mutation previously treated with at least one EGFR TKI and one platinum-based chemotherapy-containing regimen; HERTHENA-

PanTumor01, a phase 2 trial in 10 locally advanced or metastatic solid tumor types, including melanoma, gastric and head and neck cancer, among other types of cancer, previously treated with at least one prior systemic therapy; a phase 1 trial in combination with osimertinib in EGFR-mutated locally advanced or metastatic NSCLC; and a phase 1 trial in previously treated patients with advanced NSCLC. A phase 1/2 trial in HER3 expressing metastatic breast cancer also has been completed.

About the Daiichi Sankyo and Merck Collaboration

Daiichi Sankyo and Merck entered into a global collaboration in October 2023 to jointly develop and commercialize patritumab deruxtecan (HER3-DXd), ifinatamab deruxtecan (I-DXd) and raludotatug deruxtecan (R-DXd), except in Japan where Daiichi Sankyo will maintain exclusive rights. Daiichi Sankyo will be solely responsible for manufacturing and supply. In August 2024, the global co-development and co-commercialization agreement was expanded to include MK-6070 which they will jointly develop and commercialize worldwide, except in Japan where Merck will maintain exclusive rights. Merck will be solely responsible for manufacturing and supply for MK-6070.

About the ADC Portfolio of Daiichi Sankyo

The Daiichi Sankyo ADC portfolio consists of seven ADCs in clinical development crafted from two distinct ADC technology platforms discovered in-house by Daiichi Sankyo.

The ADC platform furthest in clinical development is Daiichi Sankyo's DXd ADC Technology where each ADC consists of a monoclonal antibody attached to a number of topoisomerase I inhibitor payloads (an exatecan derivative, DXd) via tetrapeptide-based cleavable linkers. The DXd ADC portfolio currently consists of ENHERTU, a HER2 directed ADC, and datopotamab deruxtecan (Dato-DXd), a TROP2 directed ADC, which are being jointly developed and commercialized globally with AstraZeneca. Patritumab deruxtecan (HER3-DXd), a HER3 directed ADC, ifinatamab deruxtecan (I-DXd), a B7-H3 directed ADC, and raludotatug deruxtecan (R-DXd), a CDH6 directed ADC, are being jointly developed and commercialized globally with Merck. DS-3939, a TA-MUC1 directed ADC, is being developed by Daiichi Sankyo.

The second Daiichi Sankyo ADC platform consists of a monoclonal antibody attached to a modified pyrrolobenzodiazepine (PBD) payload. DS-9606, a CLDN6 directed PBD ADC, is the first of several planned ADCs in clinical development utilizing this platform.

Datopotamab deruxtecan, ifinatamab deruxtecan, patritumab deruxtecan, raludotatug deruxtecan, DS-3939 and DS-9606 are investigational medicines that have not been approved for any indication in any country. Safety and efficacy have not been established.

About Daiichi Sankyo

Daiichi Sankyo is an innovative global healthcare company contributing to the sustainable development of society that discovers, develops and delivers new standards of care to enrich the quality of life around the world. With more than 120 years of experience, Daiichi Sankyo leverages its world-class science and technology to create new modalities and innovative medicines for people with cancer, cardiovascular and other diseases with high unmet medical needs. For more information, please visit www.daiichisankyo.com.

Merck's Focus on Cancer

Every day, we follow the science as we work to discover innovations that can help patients, no matter what stage of cancer they have. As a leading oncology company, we are pursuing research where scientific opportunity and medical need converge, underpinned by our diverse pipeline of more than 25 novel mechanisms. With one of the largest clinical development programs across more than 30 tumor types, we strive to advance breakthrough science that will shape the future of oncology. By addressing barriers to clinical trial participation, screening and treatment, we work with urgency to reduce disparities and help ensure patients have access to high-quality cancer care. Our unwavering commitment is what will bring us closer to our goal of bringing life to more patients with cancer. For more information, visit https://www.merck.com/research/oncology/.

About Merck

At Merck, known as MSD outside of the United States and Canada, we are unified around our purpose: We use the power of leading-edge science to save and improve lives around the world. For more than 130 years, we have brought hope to humanity through the development of important medicines and vaccines. We aspire to be the premier research-intensive biopharmaceutical company in the world – and today, we are at the forefront of research to deliver innovative health solutions that advance the prevention and treatment of diseases in people and animals. We foster a diverse and inclusive global workforce and operate responsibly every day to enable a safe, sustainable and healthy future for all people and communities. For more information, visit www.merck.com and connect with us on X (formerly Twitter), Facebook, Instagram, YouTube and LinkedIn.

Forward-Looking Statement of Merck & Co., Inc., Rahway, N.J., USA

This news release of Merck & Co., Inc., Rahway, N.J., USA (the "company") includes "forward-looking statements" within the meaning of the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995. These statements are based upon the current beliefs and expectations of the company's management and are subject to significant risks and uncertainties. There can be no guarantees with respect to pipeline candidates that the candidates will receive the necessary regulatory approvals or that they will prove to be commercially successful. If underlying assumptions prove inaccurate or risks or uncertainties materialize, actual results may differ materially from those set forth in the forward-looking statements.

Risks and uncertainties include but are not limited to, general industry conditions and competition; general economic factors, including interest rate and currency exchange rate fluctuations; the impact of pharmaceutical industry regulation and health care legislation in the United States and internationally; global trends toward health care cost containment; technological advances, new products and patents attained by competitors; challenges inherent in new product development, including obtaining regulatory approval; the company's ability to accurately predict future market conditions; manufacturing difficulties or delays; financial instability of international economies and sovereign risk; dependence on the effectiveness of the company's patents and other protections for innovative products; and the exposure to litigation, including patent litigation, and/or regulatory actions.

The company undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events or otherwise. Additional factors that could cause results to differ materially from those described in the forward-looking statements can be found in the company's Annual Report on Form 10-K for the year ended December 31, 2023 and the company's other filings with the Securities and Exchange Commission (SEC) available at the SEC's Internet site (www.sec.gov).

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