

## Press Release

### **Phase 3 Data Show Daiichi Sankyo's Once-Daily Edoxaban Lowered Incidence of VTE Recurrence and Clinically Relevant Bleeding Compared to Warfarin in a Large Subgroup of Patients with Cancer**

- *VTE patients with cancer treated with once-daily edoxaban had a numerically lower incidence of recurrent VTE and a 36% lower risk of clinically relevant bleeding compared to warfarin in a subgroup analysis of the phase 3 Hokusai-VTE study<sup>1</sup>*
- *In general, the annual incidence of VTE is as high as 20% in cancer patients and contributes to increased risk of mortality<sup>2</sup>*
- *Results in this subgroup analysis are consistent with the overall phase 3 Hokusai-VTE results previously reported<sup>1,3</sup>*
- *This analysis of VTE patients with cancer was presented at the 2013 American Society of Hematology Annual Meeting and Exposition*

**New Orleans, Louisiana and Tokyo, Japan,** December 9, 2013 – Daiichi Sankyo Company, Limited (hereafter, Daiichi Sankyo) today announced results of a prespecified subgroup analysis of 771 cancer patients enrolled in the phase 3 Hokusai-VTE study. Patients with either a history of cancer (n=563) or with active cancer (n=208) treated with the once-daily factor Xa-inhibitor edoxaban had a numerically lower incidence of recurrent symptomatic venous thromboembolism (VTE) compared to warfarin (3.7% vs. 7.1%, respectively; hazard ratio [HR], 0.53; 95% confidence interval [CI], 0.28 to 1.00). Once-daily edoxaban also had a lower incidence of clinically relevant bleeding (major or non-major) compared to warfarin in cancer patients (12.4% vs. 18.8%, respectively; HR, 0.64; 95% CI, 0.45 to 0.92).<sup>1</sup> These findings are consistent with the results from the wider study population of 8,292 patients, which found once-daily edoxaban met the primary efficacy endpoint of non-inferiority for the treatment and prevention of VTE and superiority for the pre-specified principal safety outcome of clinically relevant bleeding compared to warfarin.<sup>3</sup> The data from this subgroup analysis of the phase 3 Hokusai-VTE study were presented at the 2013 American Society of Hematology Annual Meeting and Exposition in New Orleans.

“VTE is a common complication in cancer patients, and cancer patients with VTE are at higher risk of recurrence, so we are pleased that the subgroup analysis found that patients treated with edoxaban had a numerically lower incidence of VTE recurrence and clinically relevant bleeding compared to warfarin,”

said Gary Raskob, PhD, Dean of the College of Public Health, Professor, Epidemiology and Medicine University of Oklahoma Health Sciences Center in Oklahoma City, Oklahoma and member of the Hokusai-VTE steering committee. “These findings provide us with insights about the potential benefit of edoxaban administered once-daily compared to warfarin for the treatment and prevention of recurrent symptomatic VTE in cancer patients.”

“VTE is a major cause of morbidity and mortality in patients with cancer, with an annual incidence that can be as high as 20% depending on the cancer type, background risk, and time since diagnosis,”<sup>2,4</sup> said Harry Büller, MD, PhD, Professor of Internal Medicine, Chairman of the Department of Vascular Medicine at the Academic Medical Center in Amsterdam, The Netherlands and Chairman of the Hokusai-VTE steering committee. “A promising finding was the sizeable reduction in recurrent symptomatic VTE among cancer patients who were treated with once-daily edoxaban.”

In the subset of 208 patients with active cancer, once-daily edoxaban had a rate of VTE recurrence of 3.7% compared to 7.1% for warfarin (HR, 0.55; 95% CI, 0.16 to 1.85) and an incidence of clinically relevant bleeding of 18.3% compared to 25.3% for warfarin (HR, 0.72; 95% CI, 0.40 to 1.30).<sup>1</sup>

“Our global Hokusai-VTE study of once-daily edoxaban included a broad range of patients and we recognize that VTE can be a common complication of cancer, so it’s not surprising to see that 9.3% of patients enrolled had active cancer or a history of cancer,” said Glenn Gormley, MD, PhD, Senior Executive Officer and Global Head of Research and Development, Daiichi Sankyo Co., Ltd. and President and CEO of Daiichi Sankyo, Inc. in the United States. “Daiichi Sankyo is committed to help clinicians understand potential treatment strategies for diverse patient populations with VTE.”

### **About Hokusai-VTE**

Hokusai-VTE was a global, event-driven, randomized, double-blind, parallel-group phase 3 clinical study involving 8,292 patients in 439 clinical sites across 37 countries to evaluate once-daily edoxaban in patients with either acute symptomatic deep vein thrombosis (DVT), pulmonary embolism (PE), or both. The Hokusai-VTE study was designed to reflect clinical practice using a flexible treatment duration of three to 12 months, including initial use of heparin, the proven global standard of care, in both arms, in a broad spectrum of VTE patients, including those with cancer.<sup>3</sup>

The full results were presented at the ESC Congress 2013 in Amsterdam and published in the *New England Journal of Medicine*, demonstrating that edoxaban met the primary efficacy endpoint of non-

inferiority, with a numerically lower incidence of recurrent symptomatic VTE compared to warfarin (3.2% vs. 3.5%, respectively) (HR, 0.89; 95% CI, 0.70 to 1.13;  $p < 0.001$  for non-inferiority) following initial use of heparin in both arms. Recurrent symptomatic VTE was defined as the composite of recurrent symptomatic DVT, non-fatal symptomatic PE and fatal PE in patients during the 12-month study period. Once-daily edoxaban was also found to be superior to warfarin for the pre-specified principal safety outcome of clinically relevant bleeding (8.5% vs. 10.3%, respectively) (HR, 0.81; 95% CI, 0.71 to 0.94;  $p = 0.004$  for superiority) occurring during or within three days of interrupting or stopping study treatment.<sup>3</sup>

The Hokusai-VTE study included a prespecified subgroup analysis of patients with either a history of cancer ( $n = 563$ ) or with active cancer ( $n = 208$ ) if long term low molecular weight heparin (LMWH) was not planned due to availability, physician judgment or patient preference. The trial excluded patients with active cancer for whom long term treatment with LMWH was anticipated.<sup>3</sup>

The study is named after the famous Japanese artist and painter Katsushika Hokusai.

### **Venous Thromboembolism in Cancer Patients**

VTE is an umbrella term for two conditions, DVT and PE. DVT is a blood clot found anywhere in the deep veins of the legs, while PE occurs when part of a clot detaches and lodges in the pulmonary arteries, causing a potentially fatal condition.<sup>5</sup>

In cancer patients, there is a significantly increased risk of VTE compared to the general population due to proteins released by malignant tumors that promote coagulation.<sup>6</sup> Studies have suggested that patients with cancers of the pancreas, lung, stomach and adenocarcinomas of unknown primary origin are at the highest risk of VTE due to the release of mucin, a protein commonly found in these types of cancers that can contribute to coagulation through the aggregation of platelets.<sup>7,8</sup> Certain anticancer therapies, such as chemotherapy, immunomodulatory agents and antiangiogenic agents also increase the risk of VTE in this patient population.<sup>7</sup>

In the general population VTE is a major cause of morbidity and mortality worldwide with an annual incidence of approximately one per 1,000 in developed countries, including an estimated 430,000 PE events, 680,000 DVT events and 540,000 deaths each year in the EU.<sup>9,10</sup> In the U.S., it is currently estimated that more than 950,000 VTE events and approximately 300,000 VTE related deaths occur each year.<sup>11,12</sup> In patients with cancer who develop VTE, there is a four- to eight-fold higher risk of dying after

an acute thrombotic event than in patients without cancer.<sup>7</sup> Additionally, patients with cancer and VTE have a lower survival rate than those without VTE.<sup>7</sup>

### **About Edoxaban**

Edoxaban is an investigational, oral, once-daily anticoagulant that specifically inhibits factor Xa, which is an important factor in the coagulation system that leads to blood clotting.<sup>13</sup> The global edoxaban clinical trial program includes two phase 3 clinical studies, Hokusai-VTE and ENGAGE AF-TIMI 48 (Effective aNticoagulation with Factor XA Next GEneration in Atrial Fibrillation). The results from these trials will form the basis of New Drug Applications for edoxaban for two potential indications, the treatment and prevention of recurrence of venous thromboembolism (VTE) in patients with deep vein thrombosis (DVT) and/or pulmonary embolism (PE), and for the prevention of stroke and systemic embolic events (SEE) in patients with non-valvular atrial fibrillation, respectively.<sup>3,14</sup>

Edoxaban is currently approved only in Japan, since April 2011, for the prevention of VTE after major orthopedic surgery, and was launched in July 2011 under the brand name Lixiana®. Elsewhere, including Europe and the U.S., edoxaban is currently in phase 3 clinical development and has not been approved in any indication.<sup>15</sup>

### **About Daiichi Sankyo**

Daiichi Sankyo Group is dedicated to the creation and supply of innovative pharmaceutical products to address the diversified, unmet medical needs of patients in both mature and emerging markets. While maintaining its portfolio of marketed pharmaceuticals for hypertension, hyperlipidemia, and bacterial infections, the Group is engaged in the development of treatments for thrombotic disorders and focused on the discovery of novel oncology and cardiovascular-metabolic therapies. Furthermore, the Daiichi Sankyo Group has created a "Hybrid Business Model," which will respond to market and customer diversity and optimize growth opportunities across the value chain. For more information, please visit: [www.daiichisankyo.com](http://www.daiichisankyo.com).

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## Forward-looking statements

This press release contains forward-looking statements and information about future developments in the sector, and the legal and business conditions of DAIICHI SANKYO, Co. Ltd. Such forward-looking statements are uncertain and are subject at all times to the risks of change, particularly to the usual risks faced by a global pharmaceutical company, including the impact of the prices for products and raw materials, medication safety, changes in exchange rates, government regulations, employee relations, taxes, political instability and terrorism as well as the results of independent demands and governmental inquiries that affect the affairs of the company. All forward-looking statements contained in this release hold true as of the date of publication. They do not represent any guarantee of future performance. Actual events and developments could differ materially from the forward-looking statements that are explicitly expressed or implied in these statements. DAIICHI SANKYO, Co. Ltd assume no responsibility for the updating of such forward-looking statements about future developments of the sector, legal and business conditions and the company.

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