

Passion for Innovation.  
Compassion for Patients.™



**Daiichi Sankyo Europe**  
**Our Commitment in Antithrombotics**



Daiichi-Sankyo

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## Living our Purpose

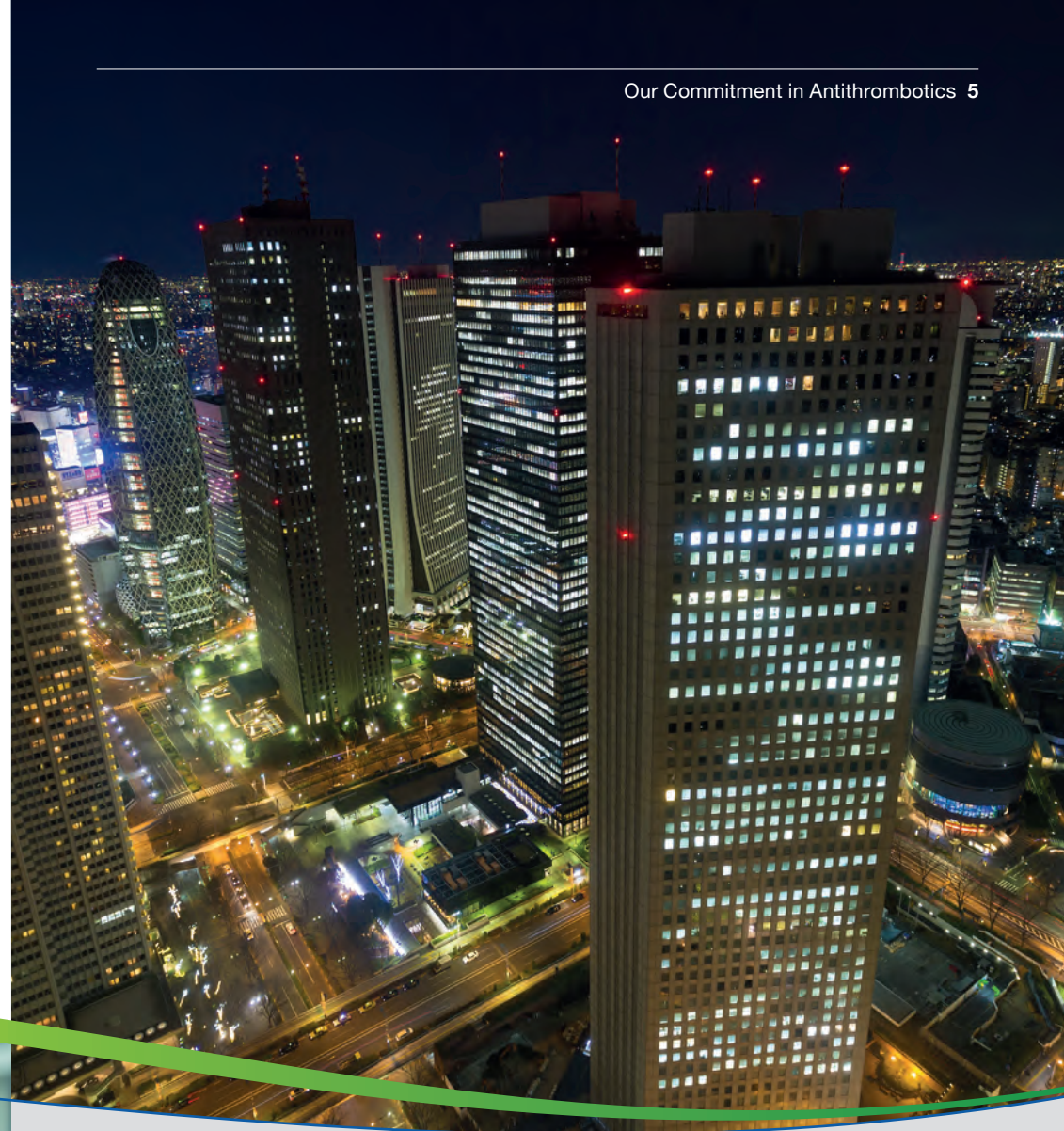
The Daiichi Sankyo Group is dedicated to the creation and supply of **innovative pharmaceutical products** to address diverse, unmet medical needs of patients in mature and emerging markets.

We are a **global pharmaceutical company** with approximately **16,000 employees** and a presence in more than **20 countries**. We have **pioneered leading pharmaceutical products**, including Adrenalin®, an adrenal cortex hormone agent.

In **2005**, Daiichi Sankyo was established through the **merger of two companies: Sankyo Co., Ltd. and Daiichi Pharmaceutical Co., Ltd.**

Sankyo was founded as Sankyo Shoten in **1899**; 14 years later the name changed to Sankyo Co., Ltd.

The roots of Daiichi Pharmaceutical Co., Ltd. go back to **1915**, when the company was founded as Arsemin Shokai.



## Our R&D Highlights

In 1900, **Jokichi Takamine**, the first president of Sankyo Shoten, **isolated adrenalin**, the first pure hormone from the suprarenal gland.

Researchers from Sankyo Co., Ltd. discovered the first **HMG-CoA reductase inhibitor, pravastatin, the first lipid-lowering statin**, in 1973, and ten years later, discovered **troglitazone**, an **insulin sensitiser**, marking the discovery of the **glitazone class of medications**.

Researchers from Daiichi Pharmaceuticals Co., Ltd. discovered the broad-spectrum oral **antibacterial agent levofloxacin**, the first **third-generation quinolone** in 1985 and in the 1990s, developed **irinotecan**, which is now an established **colon cancer therapy**.





## Daiichi Sankyo in Europe

Our company's roots in Europe extend back to the **1980s**, when Daiichi Pharmaceutical Co., Ltd. and Sankyo Co., Ltd. established offices in Düsseldorf, Germany.

In **1990** Sankyo Co., Ltd. acquired pharmaceutical company **Luitpold Werke** from Munich, Germany, with production facilities in Pfaffenhofen, Germany and Altkirch, France.

Daiichi Sankyo is one of the largest Japanese pharmaceutical companies in Europe.



## Daiichi Sankyo – Our Legacy in Thrombotic Diseases

Daiichi Sankyo has been a **pioneer in the field of thrombotic diseases for more than half a century**. This commitment is reflected in two antithrombotic products currently available for patients, one **antiplatelet** and one **anticoagulant**, licensed for four indications:

- **Efient®** (prasugrel), a once-daily oral treatment which targets platelet aggregation in arteries, helps to prevent atherothrombotic events in patients with acute coronary syndrome (ACS) undergoing percutaneous coronary intervention (PCI).
- **LIXIANA®** (edoxaban), a once-daily oral, direct factor Xa inhibitor, is for the prevention of stroke and systemic embolism in adult patients with non-valvular atrial fibrillation (NVAF), and for the treatment of deep vein thrombosis (DVT) and pulmonary embolism (PE), and prevention of recurrent DVT and PE in adults.



## Understanding Thrombosis

A contributory factor to **1 in 4 deaths worldwide**, thrombosis is often the underlying cause of cardiovascular disorders including heart attacks, thromboembolic strokes and venous thromboembolisms<sup>1</sup>.

As the **leading cause of death and disability**, the sheer scale of the problem caused by thrombosis presents a serious and multifaceted challenge.

Despite both worrying statistics and the unpredictable nature of the disease, there is **real hope for patients**. **Thromboses**, also known as clots, are largely **preventable with the right treatments** that address the different pathways of clot formation. By enrolling patients on a course of effective treatment, the risk of patients suffering from thrombosis and therefore major cardiovascular disorders can be significantly reduced.

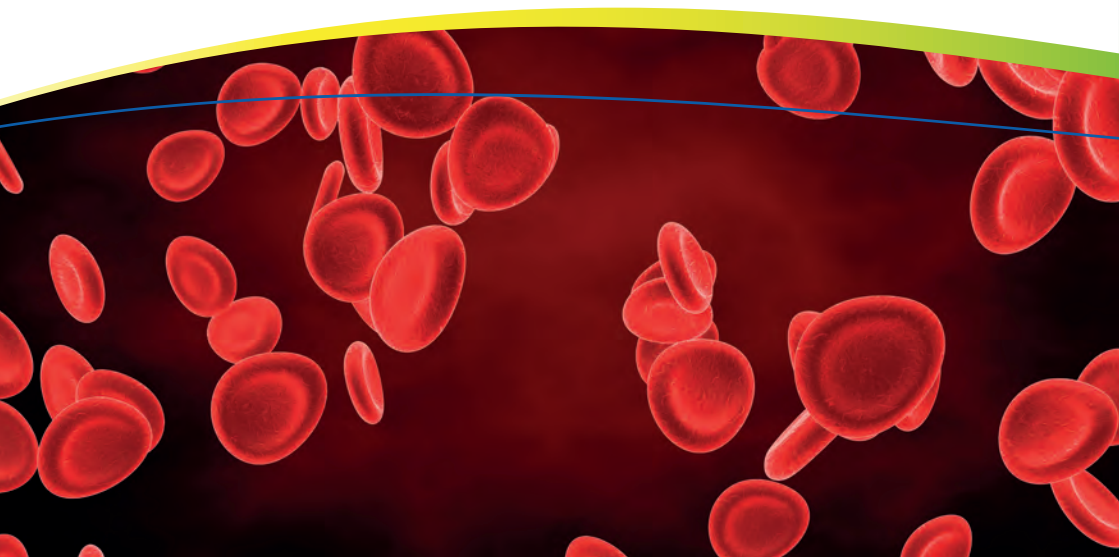


### Daiichi Sankyo – Quality Assurance in Antithrombotic Clinical Trials

We know how essential it is for patients and healthcare professionals to have full confidence in our products. That's why we **evaluate new treatments to the highest ethical standards**. Daiichi Sankyo products are only made available once they have been **evaluated through robust and high quality clinical trials**, including the **largest** in their respective fields.

That means our products are compared against standards of care, among a **broad range of patients, including those most at risk**.

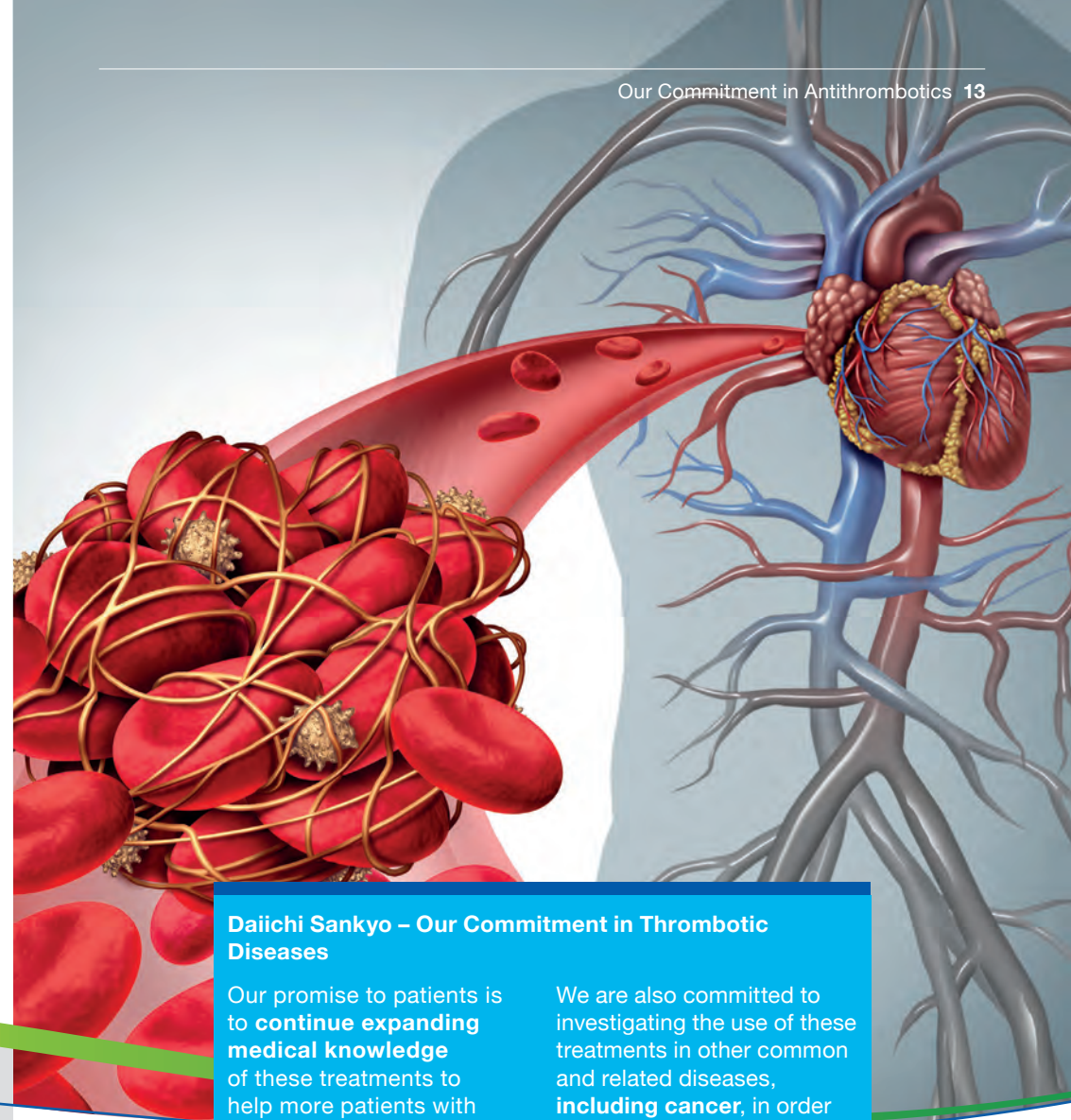
We do this to reflect best clinical practice and **assure healthcare professionals of the dosing, safety and efficacy** when prescribing our products to their patients.





## The Largest Antithrombotic Trials

- **ENGAGE AF-TIMI 48:** ENGAGE AF-TIMI 48 is the largest (21,105 patients) and the longest (median follow-up duration of 2.8 years) trial to date for stroke prevention in atrial fibrillation<sup>2,3</sup>.
- **Hokusai-VTE:** Hokusai VTE is the largest (8,292 patients) study to date of a non-vitamin K antagonist oral anticoagulant (NOAC) in venous thromboembolism (VTE) that studied patients with DVT and/or PE<sup>4,5</sup>.
- **TRITON TIMI 38:** TRITON TIMI 38 (13,608 patients) is the largest trial to date evaluating a potent platelet inhibitor in ACS-PCI to prevent major cardiovascular events<sup>6</sup>.



### Daiichi Sankyo – Our Commitment in Thrombotic Diseases

Our promise to patients is to **continue expanding medical knowledge** of these treatments to help more patients with additional cardiovascular conditions be treated according to the best treatment procedure, such as **percutaneous coronary intervention (PCI), transcatheter aortic valve implantation (TAVI), cardioversion and catheter ablation.**

We are also committed to investigating the use of these treatments in other common and related diseases, **including cancer**, in order to reduce the burden of thrombosis.

## A Changing Healthcare Landscape

We are increasingly moving towards a targeted, personalised care structure. Reducing the burden of treatment is a major area of focus, that's why we are always looking to develop **convenient, once-daily treatment options that are unimpeded by food intake and have few drug-drug interactions**. We believe this is critical to ensure adherence and optimal treatment results for patients, and to maintain healthcare professional satisfaction.

## Our Oncology Commitment

**Cancer** is one of the most common causes of death in Europe with a **high and often unmet medical need**.

Each year **14 million people worldwide** are faced with a cancer diagnosis<sup>7</sup>.

As the European population ages, the incidence of cancer is also likely to increase.

Providing current and future patients with **innovative treatments** is our goal.

Our **oncology pipeline** comprises small-molecule and monoclonal antibody agents that target a variety of biologic pathways involved in cell growth.

These treatments are currently being investigated in **Phase II and III studies** for multiple indications.

We have also obtained **orphan drug designation** for some of our agents currently under investigation.

We never give up on behalf of patients and their families.





# Major R&D Pipeline

As of March 2017. Recent updates can be found on our website:  
[www.daiichisankyo.com/rd/pipeline/development\\_pipeline/index.html](http://www.daiichisankyo.com/rd/pipeline/development_pipeline/index.html)

Therapeutic area	Phase 1	Phase 2	Phase 3	Application
<b>Oncology</b>	<ul style="list-style-type: none"> <li>• <b>DS-3032 (US/JP)</b> (MDM2 inhibitor)</li> <li>• <b>PLX7486 (US)</b> (FMS / TRK inhibitor)</li> <li>• <b>PLX8394 (US)</b> (BRAF inhibitor)</li> <li>• <b>DS-6051 (US/JP)</b> (NTRK/ROS1 inhibitor)</li> <li>• <b>PLX9486 (US)</b> (KIT inhibitor)</li> <li>• <b>DS-3201 (JP)</b> (EZH1/2 inhibitor)</li> <li>• <b>PLX73086 (US)</b> (CSF-1R inhibitor)</li> <li>• <b>PLX51107 (US)</b> (BRD4 inhibitor)</li> <li>• <b>DS-8895 (JP)</b> (Anti-EPHA2 antibody)</li> <li>• <b>DS-8273 (US)</b> (Anti-DR5 antibody)</li> <li>• <b>DS-5573 (JP)</b> (Anti-B7-H3 antibody)</li> <li>• <b>DS-8201 (JP/US)</b> (Anti-HER2 ADC)</li> <li>• <b>U3-1784 (EU)</b> (Anti-FGFR4 antibody)</li> <li>• <b>DS-1123 (JP)</b> (Anti-FGFR2 antibody)</li> <li>• <b>U3-1402 (JP)</b> (Anti-HER3 ADC)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Patritumab (EU)</b> (U3-1287 / Anti-HER3 antibody)</li> <li>• <b>Pexidartinib (US)</b> (PLX3397 / CSF-1R/KIT/FLT3-ITD inhibitor)</li> <li>• <b>DS-1647 (JP)</b> (Glioblastoma / G47Δ virus)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Denosumab (JP)</b> (AMG 162 / Breast cancer adjuvant / Anti-RANKL antibody)</li> <li>• <b>Nimotuzumab (JP)</b> (DE-766 / Gastric cancer / Anti-EGFR antibody)</li> <li>• <b>Vemurafenib (US/EU)</b> (PLX4032 / Melanoma Adjuvant / BRAFinhibitor)</li> <li>• <b>Quizartinib (US/EU/Asia)</b> (AC220 / AML-2nd / FLT3-ITD inhibitor)</li> <li>• <b>Quizartinib (US/EU/Asia)</b> (AC220 / AML-1st / FLT3-ITD inhibitor)</li> <li>• <b>Pexidartinib (US/EU)</b> (PLX3397 / TGCT / CSF-1R/KIT/FLT3-ITD inhibitor)</li> </ul>	
<b>Cardiovascular- Metabolics</b>	<ul style="list-style-type: none"> <li>• <b>DS-1040</b> (Acute ischemic stroke / TAFIa inhibitor)</li> <li>• <b>DS-2330</b> (Hyperphosphatemia)</li> <li>• <b>DS-9231/TS23</b> (Thrombosis / α2-PI inactivating antibody)</li> <li>• <b>DS-9001</b> (Dyslipidemia / Anti-PCSK9 Anticalin Albumod)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Esaxerenone (JP)</b> (CS-3150 / DM nephropathy / MR antagonist)</li> <li>• <b>DS-8500 (JP/US)</b> (Diabetes / GPR119 agonist)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Edoxaban (JP)</b> (DU-176b / AF / FXa inhibitor)</li> <li>• <b>Prasugrel (JP)</b> (CS-747 / Ischemic stroke / Antiplatelet agent)</li> <li>• <b>Esaxerenone (JP)</b> (CS-3150 / Hypertension / MR antagonist)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Edoxaban (ASCA etc.)</b> (DU-176b / AF / FXa inhibitor)</li> <li>• <b>Edoxaban (ASCA etc.)</b> (DU-176b / VTE / FXa inhibitor)</li> </ul>
<b>Others</b>	<ul style="list-style-type: none"> <li>• <b>DS-1971</b> (Chronic pain)</li> <li>• <b>DS-1501</b> (Osteoporosis / Anti-Siglec-15 antibody)</li> <li>• <b>DS-7080 (US)</b> (AMD / Angiogenesis inhibitor)</li> <li>• <b>DS-2969</b> (Clostridium difficile infection/GyrB inhibitor)</li> <li>• <b>DS-5141 (JP)</b> (DMD / ENA oligonucleotide)</li> <li>• <b>VN-0102/JVC-001 (JP)</b> (MMR vaccine)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Laninamivir (US/EU)</b> (CS-8958 / Anti-influenza / out-licensing with Biota)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Mirogabalin (US/EU)</b> (DS-5565 / Fibromyalgia / α2δ ligand)</li> <li>• <b>Mirogabalin (JP/Asia)</b> (DS-5565 / DPNP/ α2δ ligand)</li> <li>• <b>Mirogabalin (JP/Asia)</b> (DS-5565 / PHN / α2δ ligand)</li> <li>• <b>Hydromorphone (JP)</b> (DS-7113 / Cancer pain / Opioid μ- receptor regulator) &lt;Injection&gt;</li> <li>• <b>CHS-0214 (JP)</b> (Etanercept BS / Rheumatoid arthritis / TNFα inhibitor)</li> <li>• <b>VN-0105 (JP)</b> (DPT-IPV / Hib vaccine)</li> <li>• <b>Laninamivir (JP)</b> (CS-8958 / Anti-influenza / nebulizer)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Hydromorphone (JP)</b> (DS-7113 / Cancer pain / Opioid μ-receptor agonist)&lt;Oral&gt;</li> <li>• <b>CL-108 (US)</b> (Acute pain / Opioid μ-receptor agonist) Intradermal Seasonal</li> <li>• <b>Influenza Vaccine (JP)</b> (VN-100 / prefilled i.d. vaccine for seasonal flu)</li> <li>• <b>VN-0107/MEDI3250 (JP)</b> (Nasal spray flu vaccine)</li> <li>• <b>Denosumab (JP)</b> (AMG 162 / Rheumatoid arthritis / Anti-RANKL antibody)</li> </ul>

## We Share our Success

In Europe, Daiichi Sankyo contributes to the “**Little Hearts**” charity, which provides orphaned children in Eastern Europe with a better future.

In addition, we are dedicated to educating society and our employees about cardiovascular diseases and supporting them to live a healthy life.

This gives us the opportunity to make a difference for children in need, but also to live up to our responsibility as a pharmaceutical company.



### References

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7. World Health Organization (WHO), Fact Sheet Number 297.





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