Ascent

News Release

3/4/2025

Establish a capital and business partnership with Alfresa Corporation to advance AI solutions for the medical and pharmaceutical sectors.

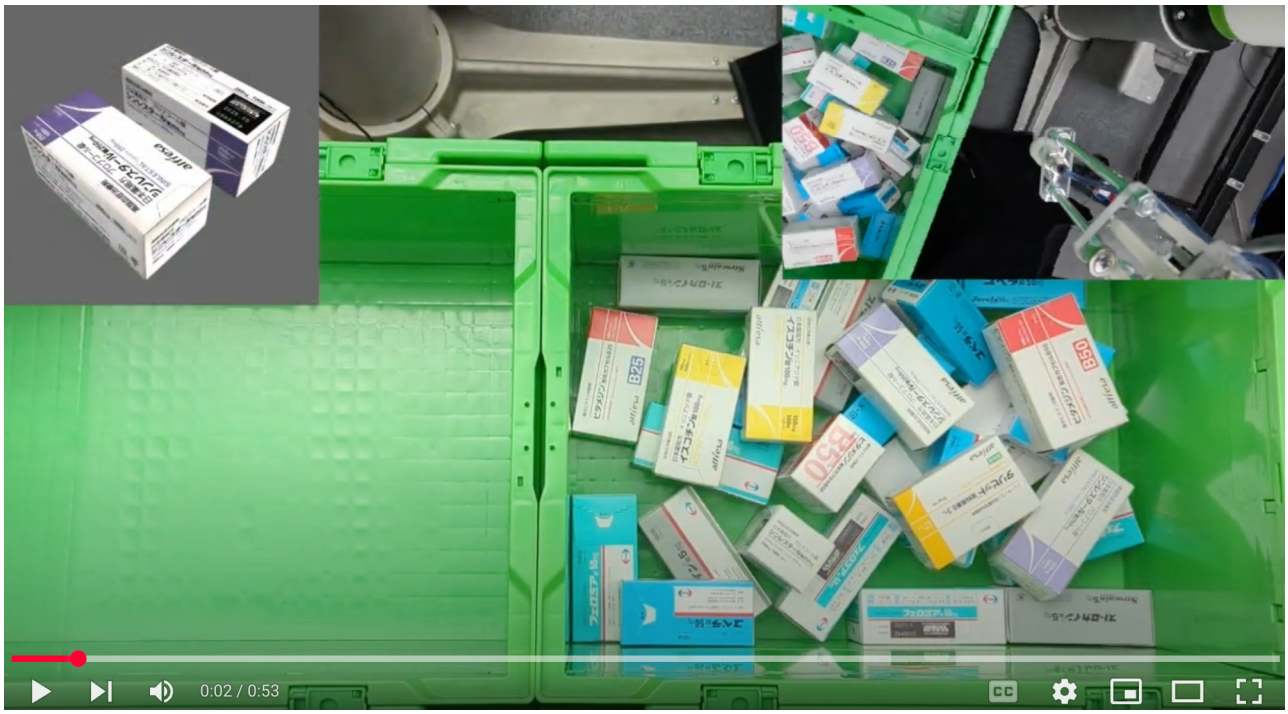
By applying advanced AI technology within the medical and pharmaceutical sectors, we aim to enhance automation in pharmaceutical distribution and address many challenges in the increasingly regulated fields of medical and pharmaceutical dispensing.

Ascent Robotics has entered a capital and business alliance with Alfresa Corporation (“Alfresa”) to use the pharmaceutical digital twin to realize pharmaceutical logistics and medical DX in the medical field.

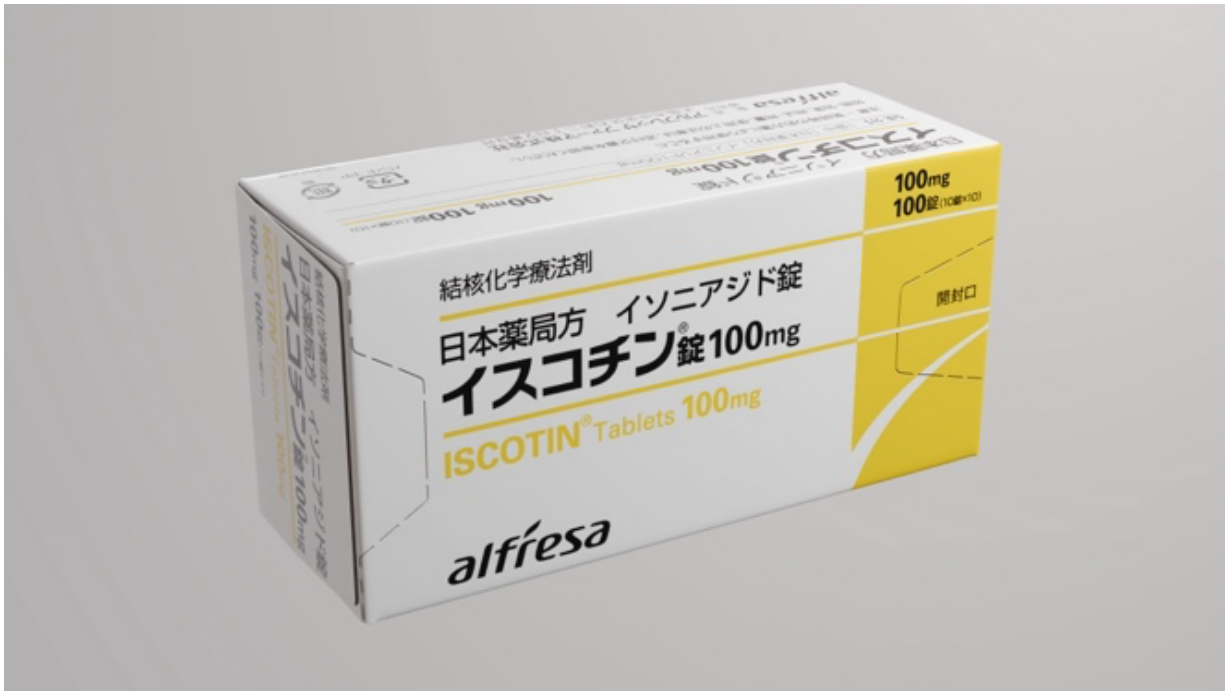
The importance of medical and pharmaceutical products is increasing globally, and comprehensive solutions are required in pharmaceutical logistics and information utilization in the medical field, nursing care facilities, and dispensing pharmacies.

Taking the opportunity of this alliance, we will promote further reforms in pharmaceutical logistics and medical practice by utilizing Ascent Robotics' recognition solutions and intelligent robotics that utilize state-of-the-art AI and digital twin technology[1] and Alfresa's extensive distribution and network in the medical and pharmaceutical fields. We will promote further reform of pharmaceutical logistics and the medical frontlines.

[The intelligent robot trained by the pharmaceutical digital twin data can handle prescription drug boxes with accuracy and care]

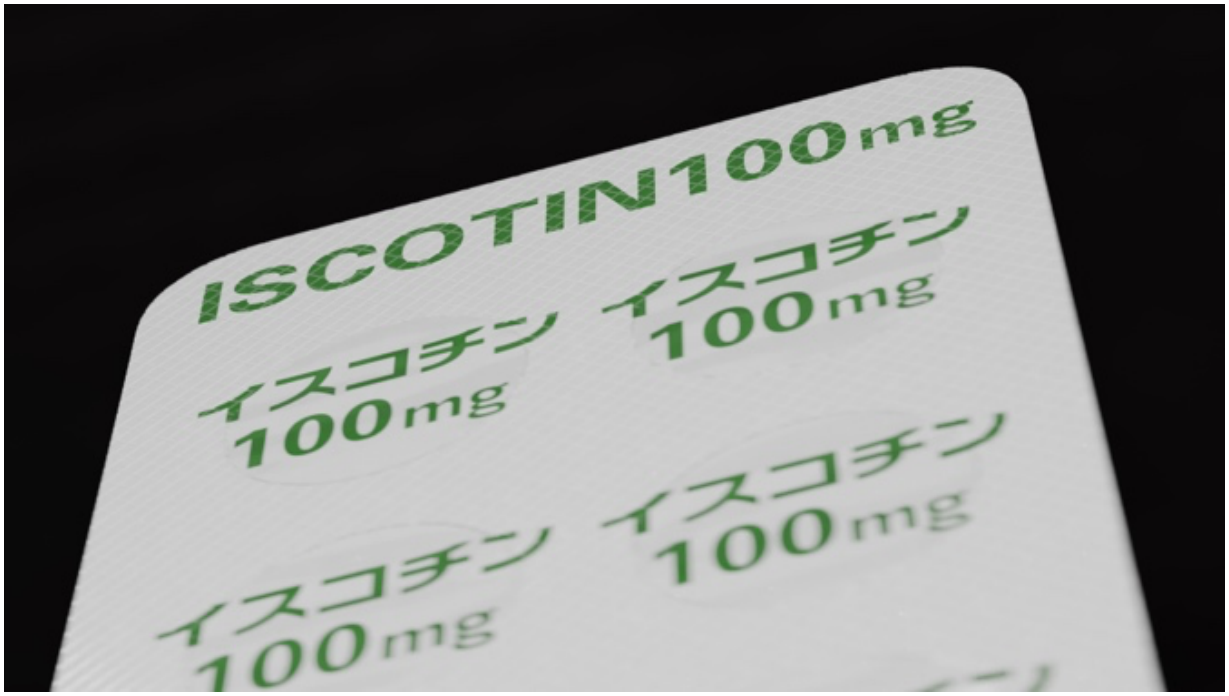


Structured pharmaceutical digital twin (prescription drug box, PTP sheets, tablets) generated by Ascent Robotics' AI technology

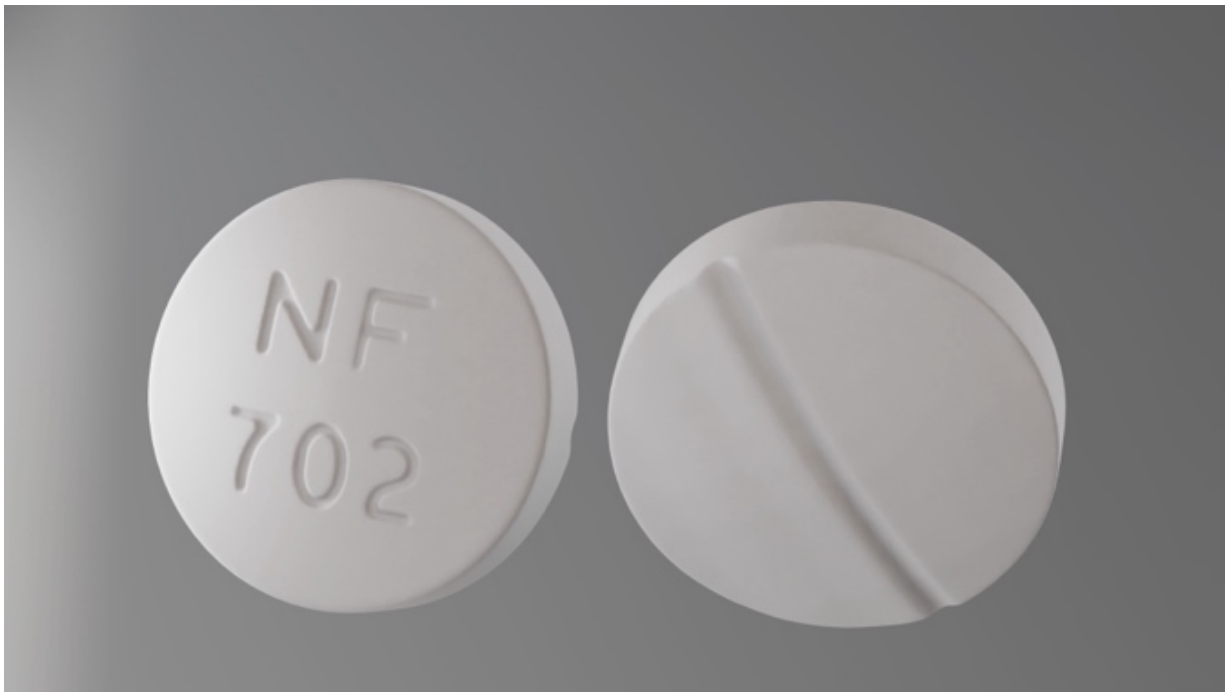


An accurate digital twin of lifelike cut lines and glued box sides

PTP sheets and tablets are generated as high-definition structured digital twin models

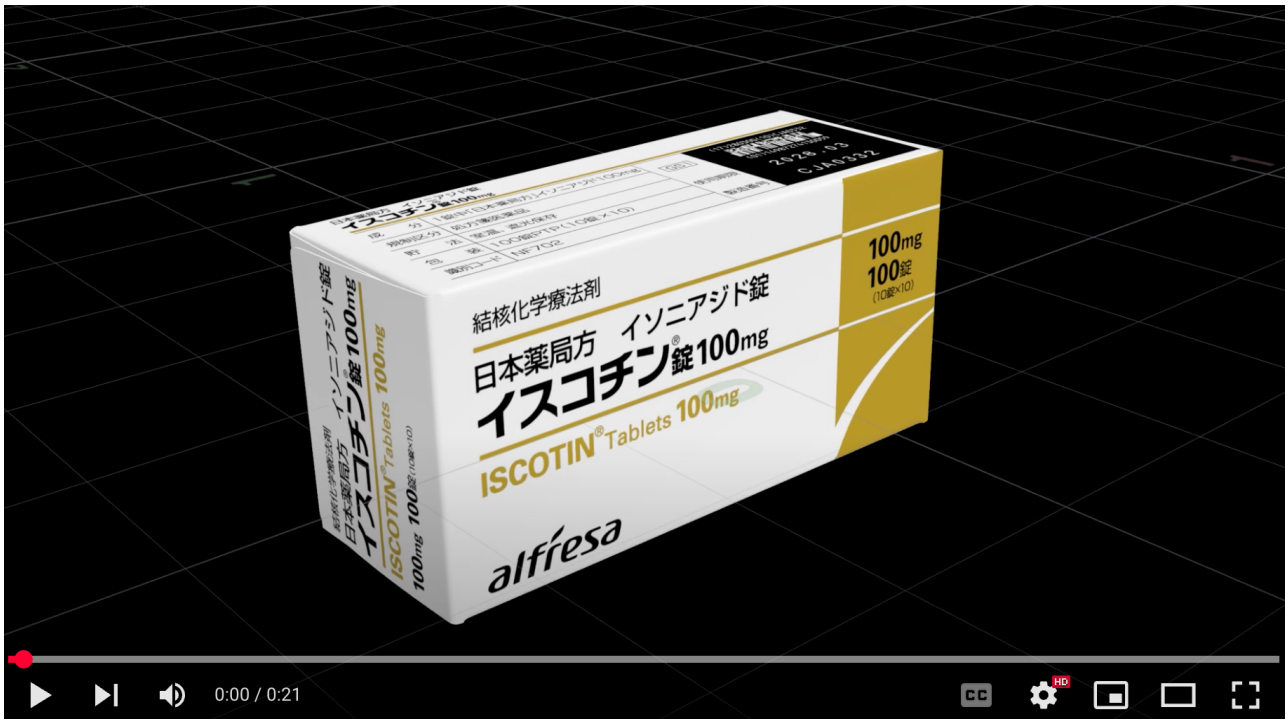


The back side of PTP sheet is generated based on material and processing method information



The tablet digital twin is generated with accurate shapes, material texture, color, embossing, and dividing line

Pharmaceutical Digital Twin Pipeline Generation (video)



Comments from Ken Kutaragi, CEO and President, Ascent Robotics, Inc.

The global pharmaceutical market is evolving into a vast industry with a market size of $1.606 trillion (approximately 233 trillion yen) [2], encompassing over 6,000 pharmaceutical manufacturers[2] and tens of thousands of approved prescription drugs[2] as of 2023. In Japan, the market is valued at 10.6 trillion yen[2], featuring around 500 pharmaceutical manufacturers[2] and 57,000 approved prescription drugs[2]. Additionally, the estimated damage caused by counterfeit pharmaceuticals is around 20 trillion yen[2], underscoring the significance of this issue both quantitatively and qualitatively.

Although physicians and pharmacists systematically manage information about each drug's ingredients and prescriptions, their distribution process and handling of medications still depend on manual operations. This continues to be a significant burden for medical and nursing care facilities.
Moreover, the advancement of digitalization and automation in Japan’s major pharmaceutical distribution centers has not progressed as quickly as anticipated.

In Japan, we expect that AI technology leveraging the pharmaceutical digital twin, which enables the precise identification of tens of thousands of pharmaceuticals, will enhance automation in the distribution sector, improve work efficiency in the medical field, and bolster the assurance of pharmaceutical safety. Through this capital and business alliance, Ascent Robotics’ advanced AI technology and structured pharmaceutical digital twin will be widely adopted across the pharmaceutical industry, including Alfresa, to tackle these critical challenges and foster innovation in the sector.

Comments from Yusuke Fukujin, President and Representative Director of Alfresa Corporation

Quality must always be the top priority when handling pharmaceuticals. However, this does not mean we should neglect efficiency. As a company involved in pharmaceutical distribution, we must continually seek a balance between quality and efficiency as our goal.
We are pleased to announce that we have begun developing innovative solutions for digitalizing and automating pharmaceutical logistics using Ascent Robotics' advanced AI technology. By leveraging this technology, we aim to enhance operational efficiency at each distribution stage, particularly in the medical field.

Falsified medicine (fake medicines, counterfeit brands, and low-quality products) is a major issue for the global pharmaceutical industry. Beyond economic concerns, they pose serious risks by depriving patients of essential treatment options, making this a critical social issue.

Pharmaceutical packaging represents a collection of know-how, including packaging materials that safeguard quality and labeling that avoids errors. Using the pharmaceutical package as an identifier, this initiative could spark a significant revolution in pharmaceutical distribution, and we anticipate it will foster additional advancements in healthcare.

About Alfresa Group

Alfresa Holdings Corporation, a pure holding company, is the parent of the Alfresa Group. The group develops and manufactures pharmaceutical products, distributes them, and operates dispensing pharmacies. With consolidated sales exceeding 2.8 trillion yen, it is the leading pharmaceutical wholesaler in Japan.
With our corporate philosophy of “We create and deliver a fresh life for all, “over 15,000 people working together* in Japan and abroad not only support the supply chain of pharmaceuticals and other products, which form the social infrastructure for medical care but also contribute to a wide range of medical needs.
(*The Alfresa Group refers to its employees as “people working together.”)

Name: Alfresa Holdings Corporation
President and Representative Director: Ryuji Arakawa
Business activities: Wholesale, manufacture, sale, import/export, etc., of pharmaceuticals, medical diagnostic reagents, and medical equipment and instruments, as well as management of dispensing pharmacies and subsidiaries engaged in related activities.
Establishment: September 2003
Capital: 18,454 million yen
Number of employees: 15,557 (consolidated, as of March 31, 2024)
Head office: 1-1-3 Otemachi, Chiyoda-ku, Tokyo 101-8512, Japan
URL: http://www.alfresa.com

About Alfresa Corporation

For 20 years since its establishment in 2004, Alfresa has offered various services that support individuals' health, focusing on the wholesale distribution of ethical pharmaceuticals to hospitals and pharmacies. In addition to ethical pharmaceuticals, we source medical equipment, testing reagents, and nutritional foods from around 1,000 manufacturers in Japan and internationally, delivering them reliably and safely to hospitals, clinics, and pharmacies.

In recent years, we have supported the development of community-based comprehensive care systems tailored to individual needs through our national network of approximately 170 locations. Furthermore, through various information services and solution tools, we strive to enhance operational efficiency and improve the quality of medical care in the healthcare sector.

Name: Alfresa Corporation
President and Representative Director: Yusuke Fukujin
Business activities: Wholesale sales of ethical pharmaceuticals, medical devices, medical testing reagents, nursing care products, health foods, over-the-counter drugs, etc.
Establishment: August 1949
Capital: 4,000 million yen
Number of employees: 5,834 (as of March 31, 2024)
Head office: 7 Kanda Mitoshiro-cho, Chiyoda-ku, Tokyo 101-8512, Japan
URL: http://www.alfresa.co.jp

About Ascent Robotics

Company name: Ascent Robotics Corporation
Representative Director and CEO: Ken Kutaragi
Business: Generation of digital twins, solutions utilizing digital twins, and development and sales of AI software for industrial robotics
Establishment: September 2016
Capital: 100 million yen (as of December 31, 2024)
Number of employees: 28 (as of March 4, 2025)
Head Office: 1-10-5 Hiroo, Shibuya-ku, Tokyo, Japan
URL: https://ascent.ai/

For inquiries regarding this matter, please contact Public Relations, Ascent Robotics, Inc. pr@ascent.ai

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[1] Digital twin technology refers to cutting-edge technology that can integrate external features and a variety of real-world information, including text, color, design, usage, materials, physical characteristics, and internal structure.
[2] Information used for reference or estimation of various market data is as follows

- Global and Japanese Pharmaceutical Market Size: Daiichi Sankyo Company, Limited Website (Pharmaceutical Market Worldwide)
- Number of pharmaceutical companies worldwide: CITELINE (2024) 'Pharma R&D Annual Review 2024 - Total number of pharmaceutical companies with active R&D pipelines worldwide from 2001 to 2024.'
- Estimated number of prescription drugs worldwide: based on the U.S. Food and Drug Administration (2024), which states there are over 23,000, along with other sources.
- The number of pharmaceutical manufacturers and prescription drugs in Japan is based on estimates derived from publicly available data from the Ministry of Health, Labor and Welfare, along with other sources, as of December 31, 2024.
- The World Health Organization (2024) estimates the global damage caused by counterfeit medicines in the article "Substandard and Falsified Medical Products" from SWI swissinfo.ch (2024), along with insights from other relevant organizations and experts on counterfeiting.