

# Press Release

September 8, 2022

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## TOHO PHARMACEUTICAL and Sysmex to Commence Dry Ice-free Supply of Quality Control Reagents for Clinical Chemistry Tests

- Realizing a Sustainable Cold Chain -

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TOHO HOLDINGS CO., LTD. (Headquarters: Setagaya-ku, Tokyo; Representative Director, CEO: Atsushi Udoh) is pleased to announce that TOHO PHARMACEUTICAL CO., LTD. (Headquarters: Setagaya-ku, Tokyo; President and Representative Director: Akira Umada; hereinafter "TOHO PHARMACEUTICAL"), our pharmaceutical wholesale subsidiary, and Sysmex Corporation (Headquarters: Kobe; Chairman and CEO: Hisashi Ietsugu; hereinafter "Sysmex") have established a system for the supply of quality control reagents for clinical chemistry tests requiring a high level of refrigerated transportation. The new system reduces transportation frequency, allows the reuse of transportation materials, and makes the overall transportation process dry ice-free. Going forward, the two companies will continue working toward the practical implementation of sustainable cold chains.

To ensure stable supplies of pharmaceuticals that require special management in the distribution process, such as orphan drugs and high-priced pharmaceuticals, TOHO PHARMACEUTICAL has developed a SALM Solution System which combines cutting-edge logistics functions and SALM, a constant-temperature transportation device that supports a wide range of temperatures. SALM incorporates a device for recording the temperature and device status in its main unit, enabling it to assure the quality of pharmaceutical products. Since the system will allow products to be returned or resold, it is expected to greatly reduce the disposal risk of high-priced specialty pharmaceuticals. A major feature is that compared to the use of refrigerants and dry ice for constant temperature control, little CO<sub>2</sub> is emitted during SALM operation.

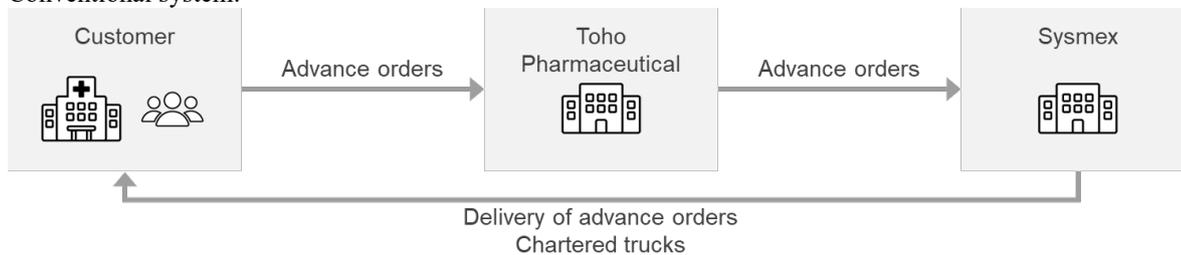
Up until now, Sysmex has been using dry ice and dedicated trucks or charter services for the delivery of products requiring refrigerated storage under strict quality and temperature management. Currently, around 90 tons of dry ice are used annually for product transportation. However, since CO<sub>2</sub> generated in the oil refining process is used as a raw material for dry ice, in consideration of eco-friendliness, stable procurement, and increased procurement prices, Sysmex has been examining measures to improve this situation. An example is the dry ice-free transportation of reagents for gene testing at ultralow temperatures (around -70 degrees Celsius) in a collaboration with Yamato Transport Co., Ltd. commencing in December 2021.

In consideration of sustainability and eco-friendliness, TOHO PHARMACEUTICAL and Sysmex have established a system for achieving dry ice-free transportation of quality control reagents, which will commence operations in September 2022. It is scheduled to become available first in Tokyo and gradually be expanded to cover other areas. The use of TOHO PHARMACEUTICAL's SALM Solution System to supply products to medical institutions will reduce transportation frequency, allow transportation materials to be reused, and reduce the amount of dry ice used and CO<sub>2</sub> emissions by eliminating the need for dry ice throughout the transportation process. This is the first initiative in the domestic in vitro diagnostic products industry to combine consolidated cargo and pharmaceutical wholesalers' general delivery system (for ordinary products) in dry-ice free long-haul deliveries to customers. Also, by making Sysmex's testing reagents readily available to customers by maintaining inventory at TOHO

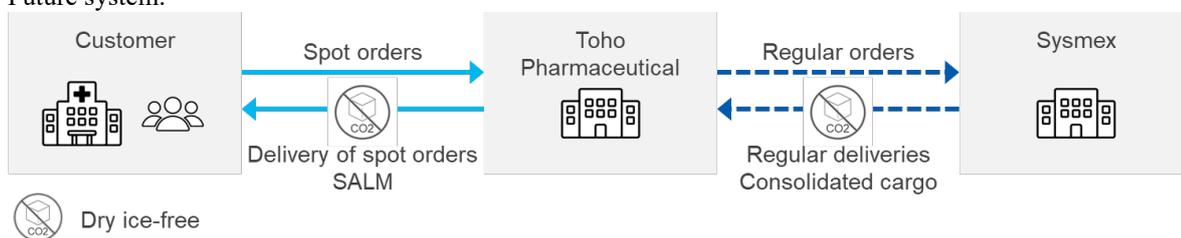
PHARMACEUTICAL, we will endeavor to maintain stable supplies of products so that healthcare professionals will have no cause for concern in clinical practice, even during disasters or other emergency situations.

Going forward, the two companies will continue efforts toward the practical implementation of sustainable cold chains that include eco-friendliness, high quality, and a stable supply of products.

Conventional system:



Future system:



SALM FZ constant-temperature transportation device

### [Reference]

● TOHO HOLDINGS CO., LTD.

Press release dated July 06, 2022: Notice Regarding a New Constant-Temperature Transportation Device "SALM FZ" which Provides a Rigorous Temperature Control in a Wide Range of Temperature  
[https://www.tohold.co.jp/en/assets/data/20220706\\_E.pdf](https://www.tohold.co.jp/en/assets/data/20220706_E.pdf)

● Sysmex Corporation

Press release dated December 23, 2021: “Sysmex and Yamato Transport Commence Dry Ice-Free Transportation of Reagents for Gene Testing in Consolidated Cargo at the Ultralow Temperature Range of Minus 70 Degrees Celsius - Realizing an Eco-Friendly, Low-Cost, and Sustainable Pharmaceutical Product Cold Chain –”  
<https://www.sysmex.co.jp/en/news/2021/pdf/211223.pdf>