

March 15, 2016 Denka Company Limited Denka Seiken Co., Ltd.

## Denka Seiken to Commence Clinical Trial of an Intradermal Influenza Vaccine

Denka Company Limited (headquarters: Chuo-ku, Tokyo; president: Shinsuke Yoshitaka; hereinafter "Denka") hereby announces that Denka Seiken Co., Ltd. (headquarters: Chuo-ku, Tokyo; president: Tetsuro Maeda; hereinafter "Denka Seiken"), a core Denka Group operating company, has decided to develop an intradermal influenza vaccine as part of initiatives to augment its vaccine-related operations. In line with this decision, Denka Seiken plans to initiate clinical trials to obtain the approval of Japan's Ministry of Health, Labour and Welfare for the production and sale of this product.

Current mainstay influenza vaccines marketed in Japan are administered via subcutaneous injection. However, intradermal injection, in which vaccines are injected between the epidermis and subcutaneous tissue, is expected to bring the following benefits to the patient.

- Because there are large number of immune cells among the cells that comprise the skin (both the epidermis and dermis), the direct delivery of vaccine antigen to the skin is expected to more efficiently induce immunity.
- The needles used for intradermal injection are thinner and shorter than those used for subcutaneous injection, thereby reducing injection site pain and somewhat alleviating emotional strain for needle-shy patients.

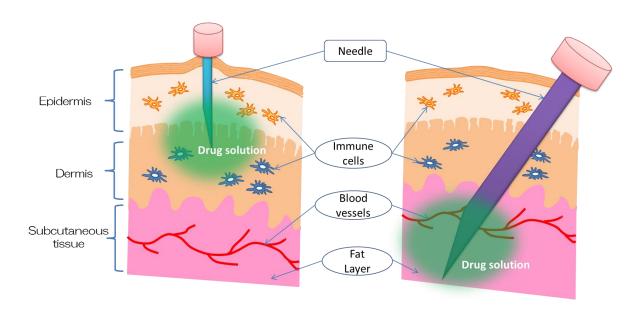
To prevent the spread of seasonal influenza, Denka Seiken will accelerate its R&D focused on delivering vaccines tailored to meet latest medical needs, aiming to commercialize the intradermal influenza vaccine at the earliest possible date. At the same time, Denka Seiken will strive to deliver vaccines that boast greater safety and effectiveness and are easy to administer, thereby contributing to Japan's public hygiene and health.

In addition, Denka Seiken's operations, which range from influenza vaccines to various diagnostic reagents, are supported by two production bases in Gosen City, Niigata Prefecture—the Niigata Plant and the Kagamida Plant. Looking ahead, we will expand the Kagamida Plant's diagnostic reagent manufacturing facilities to boost production capacity for its rapid diagnostic test kits. Simultaneously, we will relocate some of the Niigata Plant's production facilities to the Kagamida Plant, with the aim of integrating the two plants' diagnostic reagent-related facilities in order to establish an even more modern and streamlined production system. The Niigata Plant is expected to become a dedicated vaccine production base with greater capacity. In these ways, we will enhance our supply structure for vaccines and diagnostic reagents while securing stably high product quality.

In line with the Denka100 growth strategy management plan, Denka has focused its management resources on "healthcare" as a new growth driver to develop next-generation products. Moving forward, Denka will strive to meet society's expectations by actively addressing market needs and solving the challenges confronting our customers.

## Intradermal injection

## Subcutaneous injection



For inquiries:

Denka Company Limited CSR & Corporate Communications Dept.