

## Elekta KK

In 1993, Elekta AB, a Swedish world-leading manufacturer in radiotherapy equipment, established its Japanese subsidiary, Elektra KK. With 25 years having passed since then, JETRO interviewed Charles Schanen, President and Representative Director of Elekta KK, about its unique technology and future business prospects.

Elekta AB (hereafter called Elekta) is a Swedish company specialized in the development and manufacturing of radiotherapy equipment for the treatment of cancer or brain disorders. In 1968, Lars Leksell, Professor of Neurosurgery at the Karolinska Institute in Stockholm, Sweden, developed the “Gamma Knife,” a stereotactic radiosurgery technique specifically designed to treat brain disorders without a craniotomy. The company was then established by his son in 1972. Today, with 40 branch offices in 25 countries, Elekta is the radiosurgery pioneer manufacturing and marketing radiotherapy treatment solutions as well as developing cloud-based oncology management systems and treatment planning systems.



### Providing comprehensive solutions for radiotherapy

The first unit of Elekta’s “Leksell Gamma Knife” in Japan was introduced in 1990. Of 336 units currently distributed across the world, 54 are used in Japan. This is the second largest number of units after the United States.

Brain radiotherapy consists of two types: one is cranial radiotherapy (irradiating the whole brain) and the other is stereotactic radiotherapy (irradiating only lesions). Stereotactic radiotherapy, one of Elekta’s strengths, is often used to prevent cognitive decline associated with cranial radiotherapy and the potential risks

of craniotomy.

Elekta has continuously advanced the development of the Gamma Knife cumulating in the “Leksell Gamma Knife Icon,” which has for the first time introduced a mask system to the high-accuracy administration of radiation to lesions that has become a synonym for Gamma Knife. This successfully reduces the burden on the patient, as the patient’s head does not need to be fixed to a metal frame with pins.

Besides the Gamma Knife, Elekta offers a variety of Linacs, highly accurate radiotherapy systems, like the “Versa HD”, which can be used to treat various types of tumors throughout the body.

Software products include “Monaco,” a treatment planning system supporting highly effective therapy, and “MOSAIC,” an oncology information management system allowing centralized control of patient data. Elekta provides comprehensive radiotherapy solutions throughout the world.



“Leksell Gamma Knife Icon,” an Elekta stereotactic radiotherapy equipment used for the treatment of tumors and brain disorders

*Success Stories — Biotechnology/Life science***Strengthening operations in an aging Japan with significant needs**

In Japan, both the number of people afflicted with cancer and deaths from cancer has been in an increasing trend every year in line with the aging population. The number of deaths from cancer in 2016 was about 370,000, nearly twice that in 1985. According to research <sup>(\*)</sup>, approximately one-third of Japanese people die of cancer and it is estimated that 2017 saw around 1.01 million new patients of the disease. Demand for cancer treatment technologies is expected to further increase.

\*1 Source: “Cancer Statistics 2017” published by the Foundation for Promotion of Cancer Research

“Japan is the third largest market following the US and China for us,” stresses Mr. Schanen. He joined the company as Head of its manufacturing and R&D facilities in China, and then served as Head of the Asia Pacific (APAC) region headquartered in Hong Kong. After splitting the Japan-based operations off from those for the APAC region in 2017, Mr. Schanen was appointed as President of the Japanese subsidiary.

Elekta established the Japanese corporation Elekta KK in 1993 and located its headquarters in Tokyo. The company in cooperation with Canon Medical Systems, one of its partners, established a radiotherapy training center for its customers in Tochigi Prefecture. It also set up the Elekta Care Support Center to support all of its products in Tokyo. Elekta KK has increased its number of employees to 150 all over the country and provide radiotherapy-related products and services to medical institutions to support treatment processes.

“Leksell Gamma Knife Icon,” mentioned earlier, has already been installed and used for treatment in clinical sites throughout Japan after receiving regulatory approval in June 2016. Collaboration between the company and local medical institutions will enhance the quality of

regional medical services in Japan.

“If we can satisfy the high expectations of Japanese customers, we can confidently take on any other market. We are placing a greater focus on business in the Japanese market,” he said enthusiastically.



Elekta's highly accurate radiotherapy system  
“Versa HD”

**Introduction of cloud services in Japan**

In 2016, Elekta KK was selected for the “Subsidy Program for Global Innovation Centers (\*2)” supported by the Ministry of Economy, Trade and Industry and JETRO. Receiving Japanese government subsidies, the company conducted a feasibility study on a service which allows cloud-based centralized management of radiotherapy-related data in hopes of introducing it in Japan. The service was already being provided in the US, Australia, New Zealand and the UK.

\*2: A subsidy program to support the establishment of innovation centers or implementation of experimental studies in Japan by foreign companies in collaboration with Japanese companies.

In this program, the company tested the introduction of a cloud service using a security telecommunication line hosted by KDDI in its radiotherapy training center in Tochigi Prefecture. It also conducted a survey on needs related to the use of cloud services in 800 cancer treatment facilities and hospitals in Japan.

“We found a higher interest in cloud services

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in the medical practice than expected. This allowed a good start for its practical use,” said Yuki Yoshi Maeda, Japan IT Site Manager/Elekta Cloud Solutions Project Manager Global IT of Elekta KK, who supervised the program. The needs assessment survey also covered medical institutions affected by the Great East Japan Earthquake that occurred in March 2011, and a number expressed great appreciation for the cloud services as they enabled quick data recovery during disasters.

Introduction of the company’s service allows cloud-based centralized management of treatment-related information such as the operation data of radiotherapy apparatuses or patient data, as well as the sharing of the data between regions and hospitals. This would also be useful in transmitting the data of patients transferred to other hospitals or in data recovery during a disaster. Furthermore, the service can reduce costs for hospitals as it eliminates the need to purchase expensive server equipment used for data management. However, as this also means that patient treatment data is managed outside hospitals, Mr. Schanen notes that the proper handling of personal information is an issue that must be considered.

With Elekta KK’s survey as a catalyst, talks regarding business partnerships have been proceeding with multiple companies including KDDI Corporation while plans have been made for an experimental introduction of its services into a Japanese university hospital. The company intends to continue promoting its cloud services in Japan.

**Challenges in Japan: Human resources, language and regulatory issues**

According to Elekta KK, human resources and language were the challenges the company initially faced when entering the Japanese market. Medical device manufacturers need both personnel familiar with medical and IT

technology and those with clinical expertise. Although the company is currently recruiting mid-career personnel and collaborating with hospitals, securing human resources is still a challenge.

He adds “The fact that the process from application to approval for medical equipment takes much time means that innovation is introduced slowly to Japan. Simplification of procedures would allow more patients waiting for treatment to be saved.”

**Future business development**

In January 2018, Elekta AB in Sweden began distribution of “Watson for Oncology,” an artificial intelligence platform developed in collaboration with the US company IBM. The product stores a myriad of information on cancer treatment cases in a database that enables AI-based recommendations of the most appropriate treatment options for patients in only a few seconds. The company is the first radiotherapy device manufacturer to combine a conventional treatment information management system with AI. Elekta KK is also considering the possibility of combining this platform with the cloud service for which it conducted its 2016 introduction survey in Japan.

In June 2018, Elekta AB in Sweden announced that “Elekta Unity,” an innovative radiotherapy system was released in Europe. It has conducted collaborative research with its Dutch partner Philips and Utrecht University Hospital, also located in the Netherlands, and has successfully developed a combined MR diagnostic imaging and radiotherapy system. The product is attracting worldwide interest as a cutting-edge medical device which allows physicians to treat patients while visually observing tumors. It has received 510(k) clearance in the US in December 2018.

For the introduction of these new technologies, Elekta KK will continue to strengthen the maintenance and support of

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existing therapy devices in Japan. At the Elekta Care Support Center, located in Tokyo, the product support staff currently responds to customer needs from early in the morning to late at night. Through the company's unique remote service function, software is supported remotely, while hardware is supported on site by its field service employees. Additionally, it will continue to provide training for healthcare providers at its Tokyo head office and radiotherapy training center in Tochigi, increase the number of employees and strengthen promotion activities.

### JETRO's support

JETRO selected Elekta KK for the "Subsidy Program for Global Innovation Centers" and provided various types of information to the company. Regarding JETRO's support, Mr. Schanen said, "We appreciate the dedicated support JETRO gave us regardless of the fact that Elekta KK already had a long-established presence in Japan." Mr. Maeda noted "Elekta

successfully developed a network with many Japanese medical institutions in the subsidy program. We hope to continue relying on JETRO's support for public relations activities in Japan to improve our presence as a foreign-affiliated company."

(As of January 2019)



Mr. Schanen, President & Representative Director (left) and Mr. Maeda, Japan IT Site Manager/Elekta Cloud Solutions Project Manager Global IT (right) of Elekta KK

## Company history

- 1993 Elekta KK established in Kobe, Hyogo
- 2009 Headquarters relocated to Minato, Tokyo
- 2010 Merged with CMS Japan KK
- 2012 Established radiotherapy training center with Canon Medical Systems\* KK in Otawara, Tochigi
- 2014 Established Elekta Care Support Center with Canon Medical Systems KK in Minato, Tokyo

\* Previously Toshiba Medical Systems KK

## Elekta KK

Establishment	1993
Business Overview	Sales and maintenance of medical devices and medical radiotherapy treatment planning systems
Capital	100,000,000 yen
Parent Company	Elekta AB (Sweden)
Address	7th Fl. Shibaura Renasite Tower, 3-9-1 Shibaura, Minato-ku, Tokyo, 108-0023
URL	<a href="http://www.elekta.co.jp">http://www.elekta.co.jp</a>

## Support from JETRO

Adopted for the JETRO "Subsidy Program for Global Innovation Centers"