

Langenbeck's Archives—an international communication forum between Japanese and German surgeons

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Abstract

Introduction Japan's first encounter with Western Medicine was in 1543. Japanese doctors were introduced to surgical treatment by Portuguese missionaries who visited Japan mainly to propagate Christianity and trade with Japan. Until that time, Japanese doctors have treated internal diseases by using mainly traditional Chinese medicine and had not experienced modern Western medicine, particularly surgery. **Discussion** In 1639, the Tokugawa shogunate issued the policy of seclusion (national isolation policy) and prohibited contacts with foreign countries except the Netherlands and China. All European culture came into Japan through Dutch traders. Japanese doctors studied medical books written in Dutch, but could not imagine that the original versions had been written by German doctors. Japanese doctors who studied Dutch medicine founded private schools in various places nationwide, prompting the development of Western medicine. In 1868 the Edo shogunate collapsed, and the newly established Meiji government opened Japan to the rest of the world. In an effort to introduce European civilization, which had been closed to the Japanese under the 250 years, the Meiji government followed Western styles when framing policy and building social systems. In terms of medicine, for the sake of reaching the world's highest level, the government decided to learn from Germans. Many of the young Japanese doctors travelled to

Germany. However, as a world war loomed ahead, interchange with foreign countries became difficult. Peace was threatened, and even the progress of science was impeded. Although the United States led the world in the medical field, some Japanese doctors still studied in Germany after World War II to learn their medical traditions and look at the starting point of clinical medicine; and they continued the interchange between Japan and Germany. While continuing active relationship, in 1990, the German and Japanese Surgical Societies was established, and planned to hold a triennial joint meeting alternately in Germany and Japan.

Conclusion Ever since the Meiji government decided to learn medicine in German, it has been a status symbol and a dream for Japanese medical scientists to submit papers to German academic journals, particularly *Langenbeck's Archives of Surgery*. Surprisingly, 125 years ago, Dr. Hashimoto had already reported on the surgical treatment, and six other papers were submitted by some Japanese surgeons in its early period. I hope that surgeons in Germany and Japan, both of which have an over 300-year history, will work hard and maintain scientific exchange while learning from each other's strong points.

Abstrakt Die deutsch-japanischen Beziehungen zwischen Chirurgen hat eine fast 300-jährige Tradition. Deutsche, westliche Medizin wurde zuerst von holländischen Ärzten in Japan praktiziert. Vor nahezu 200 Jahren hat der Würzburger Arzt und Chirurg, Phillip Franz von Siebold in Dejima in Nagasaki gynäkologische, orthopädische, neurochirurgische und otolaryngologische Operationen ausgeführt und seit 1824 in einem Krankenhaus eine medizinische Schule gegründet. Auf Veranlassung des Emporers Meiji öffnete sich die japanische Medizin 1870 aus nationaler Isolation. Mediziner aus Deutschland, wie Erwin von Bälz und Julius K. Scriba lehrten an der Tokyo-Universität deutsche Medizin und Chirurgie. Fritz Härtel, ein Schüler von v. Schmieden, Frankfurt, war der erste Professor für Chirurgie in der Universität Osaka. In der

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zweiten Hälfte des 19. Jahrhunderts haben viele junge japanische Ärzte und Chirurgen in Deutschland, vor allem in Berlin um die fundamentale neue Entwicklung chirurgischer Techniken bei Bernhard von Langenbeck und Theodor Billroth gelernt und bei dem Pathologen Rudolf Virchow und dem Bakteriologen Robert Koch studiert. Shibasaburo Kitasato arbeitete in Robert Kochs Institut und etablierte in Tokyo die School of Medicine an der Keio Universität 1917. Hayari Miyake, später Chairman der Chirurgischen Klinik in Fukuoka, Kyushu Universität, ist Johann von Mikulicz-Radecki in Breslau während eines mehrjährigen, zweimaligen Aufenthaltes wie ein Sohn aufgenommen worden, er hat die ersten Gastroskopien und Magenoperationen mitgemacht und erlernt. Hayari Miyake hat mehrfach vor allem auf seinem Gebiet der Neurochirurgie in Langenbecks Archiv und der Deutschen Zeitschrift für Chirurgie publiziert.

Nach 1945 hat sich die japanische Medizin nach Amerika ausgerichtet, aber unmittelbar enge Beziehung zur deutschen Chirurgen weitergeführt. Intensive Beziehungen wurden von Yoshio Mishima (Tokyo-Universität), Yoshiki Hiki (Kitasato-Universität), Masayoshi Okada (Tokyo-Universität), Keiichi Maruyama (National Cancer Center) und Masaki Kitajima (Keio-Universität) mit deutschen Chirurgen und der Deutsche Gesellschaft für Chirurgie gepflegt. 1990 gründeten Yoshio Mishima zusammen mit G. Heberber, München, und H.J. Peiper, Göttingen, die Deutsch-Japanische Surgical Society; regelmäßige Joint-Meetings führten zu einem engen Austausch junger deutscher Chirurgen in Japan und japanischer Chirurgen in deutschen Kliniken; neben Hannover, München, Düsseldorf, Heidelberg waren japanische Chirurgen über Jahre in Ulm zur Ausbildung in Gastrointestinal- und Pankreaschirurgie. In Langenbecks Archiv haben seit 1865 regelmäßig japanische Chirurgen publiziert. Dr. Hashimoto von Tokyo berichtete 1885 über chirurgische Verfahren bei Exostosen, Aneurysmen, Leberabszess und congenitalen Atresien. Ein Schüler von Hayari Miyake, Fukuoka, H. Hashimoto publizierte seine Erfahrungen mit Daten zur lymphomatösen Thyreoiditis in Langenbecks Archiv. Als Ausdruck der engen fachlichen Beziehung zwischen japanischen und deutschen Chirurgen sind führende japanische Chirurgen Mitglied im Editor und Editorial Board von Langenbeck's Archives of Surgery: Masaki Kitajima (Tokyo), Yoshiki Hiki (Tokyo), Keiichi Maruyama (Tokyo), Seiki Matsuno (Sendai), Yujii Nimura (Nagoya), Toshiharu Yamaguchi (Tokyo), Akimasa Nakao (Nagoya), Sachiko Tanaka (Osaka), Naoki Hiki (Tokyo), Toshihide Imaizumi (Konogawa), Hiroshi Shimada (Yokohama) und Wataru Kimura (Yamagata).

Keywords German–Japanese surgery · Gastric surgery · Surgical endoscopy · Organ transplantation

Introduction

It is a great pleasure that in 2010, *Langenbeck's Archives of Surgery*, a journal of the German Surgical Society (Deutsche Gesellschaft für Chirurgie, or DGCH) which has an illustrious tradition and history, celebrates the 150th anniversary of its establishment, because I am an editor of the journal and was the chairman of the joint meeting of the German and Japanese Surgical Societies.

When it comes to 150th anniversaries, Keio University, the author's alma mater, celebrated the 150th anniversary of its foundation in 2008. Furthermore, Yokohama, the venue of the 44th World Congress of Surgery of the International Society of Surgery in 2011, celebrated the 150th anniversary of the opening of its port in 2009. Many epoch-making events must have occurred in the 1860s.

I am pleased to contribute an article entitled “*Langenbeck's Archives—An International communication forum between Japanese and German surgeons*” to *Langenbeck's Archives of Surgery*. In this article, I start by investigating the historical background of relationships with Western medicine in Japan, particularly German medicine centered on surgery.

Japan's first encounter with western medicine

Until the second half of the sixteenth century, Japanese doctors treated for only internal diseases by using mainly traditional Chinese medicine and had not experienced modern Western medicine, particularly surgery. In 1543, the first muskets were brought to Tanegashima Island in southern Japan by Portuguese missionaries, who visited Japan mainly to propagate Christianity and trade with Japan. With these guns came European medicine; and Japanese doctors were introduced to surgical treatment for the first time. It was just about the time when Ambroise Paré (1510–1590) began to perform surgical operations in France [1, 2].

German medicine via the Netherlands

In 1639, the Tokugawa shogunate issued the policy of seclusion (national isolation policy) and prohibited contacts with foreign countries. However, there were exceptions, which were the Netherlands and China. A handful of Dutch and Chinese merchants were permitted access to Japan. In those days, all European culture came into Japan through Dutch traders.

The Tokugawa government built a 14,000-m² man-made island called Dejima in Nagasaki, and confined Dutch traders to this small island for trading. Dejima consisted of a Dutch town equipped with a post office and a hospital, and doctors were also stationed there. Among them were several German doctors, who claimed to be Dutch (Fig. 1) [3].



Fig. 1 Dejima in Nagasaki (Nagasaki Museum)

Particularly well known are Casper Schamberger (1623–1706), who practiced Casper-style surgery and examined the third shogun Iemitsu Tokugawa, and Engelbert Kämpfer (1651–1716), who published *The History of Japan* in London after he returned to Europe; with its beautiful pictures, this book introduced Japan, then a country still unknown to Westerners. As Dutch doctors, both were granted an audience with the shogun in Edo (present-day Tokyo).

Since all medical books brought by these doctors were written in Dutch, it took Japanese doctors a lot of hard work to learn the language and study the latest European medicine (Fig. 2).



Fig. 2 Surgical Treatment by Dutch Surgeons (Siebold Museum)

Japanese doctors, for example, did not know that the anatomy book they studied in Dutch in Nagasaki was *Anatomische Tabellen* (*Anatomical Tables*), originally written by the German doctor Johann Kulmus (1689–1745) in German. This book was translated into Japanese by Genpaku Sugita (1733–1817) and published in 1774. Later, in 1790, Sugita also translated a Dutch translation of *Chirurgie* (*Surgery*), which was written by Lorenz Heister (1683–1758), into Japanese and published his translation. Japanese doctors studied these books ardently, but could not imagine that the original versions had been written by German doctors.

If Japanese are asked who the best-known foreign doctor in Japan is, even elementary school pupils would cite the name of Philipp Franz von Siebold (1796–1866), who was born in Würzburg (Fig. 3). Of course, he came to Japan as a Dutch doctor and was later identified as a German. When he arrived at Dejima in 1823, he had just graduated from the University of Würzburg and was only 25 years old. He had brought with him as many medical appliances as he could, which enabled him to provide dental, ophthalmo-



Fig. 3 Siebold 200th birth anniversary stamps issued in German (top) and Japan (bottom)

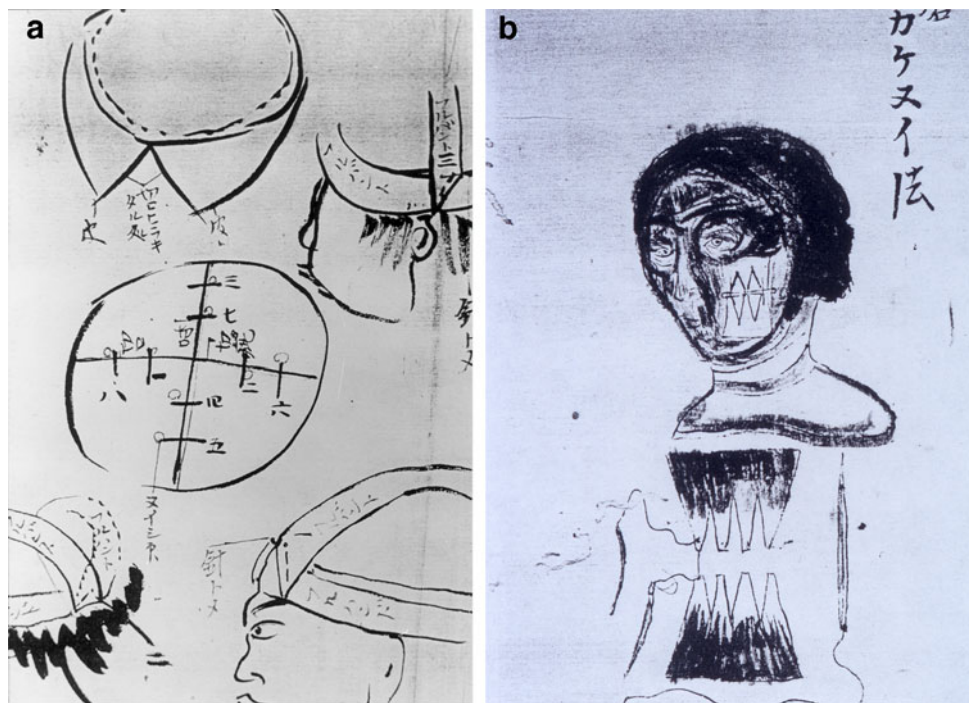


Fig. 4 **a** Operation for hydrocephalic by Siebold (Tenri University Museum) **b** Plastic and reconstructive surgery carried out by using the kakenui suture based on Paré's surgical method by Siebold (Tenri University Museum)

logical, obstetric and gynecological, orthopedic, and surgical treatment, and was ready and willing to work as a doctor. He started to examine patients at Dejima and won a high reputation for his effective treatment. He soon started to treat patients at Dejima and also in the city of Nagasaki [4]. His disciples recorded with a brush and in *sumi* (black ink) an operation performed by Siebold on the 12-year-old hydrocephalic son of a samurai (Fig. 4a), and plastic and reconstructive surgery he carried out using the *kakenui* suture based on Paré's surgical method (Fig. 4b).

In 1824, the following year, the shogun government permitted Siebold to establish a hospital and a medical school at Narutaki village, then on the outskirts of the city of Nagasaki. At the school, over 60 Japanese students aged 15 to 60 studied with him. Later, these students spread over all the country and propagated Western medicine. Incidentally, Ine Kusumoto, a daughter born to Siebold and his Japanese wife, later became the first Japanese female doctor to study Western medicine (Fig. 5) [5].

As the latest Western medicine studied in Nagasaki, particularly surgery, spread throughout the country, one Japanese surgeon who deserves special mention is Seishu Hanaoka (1760–1835). He studied the above-mentioned Casper-style surgery in Kyoto, and in 1804, after he returned to his hometown, he carried out an operation to remove a breast cancer under general anesthesia using *Datura* (jimson weed) as anesthetic [6]. This was the world's first operation under anesthesia—it was done

roughly 40 years earlier than the one performed under ether anesthesia in Boston in 1846. In order to hand down the accomplishments of Hanaoka to young Japanese surgeons today, a stamp with his portrait printed therein was issued in commemoration of the 100th Annual Congress of the Japan Surgical Society organized by the author (Fig. 6).



Fig. 5 Siebold handed down those obstetrical appliances to his daughter, Ine Kusumoto, the first Japanese female doctor (Nagasaki Museum)

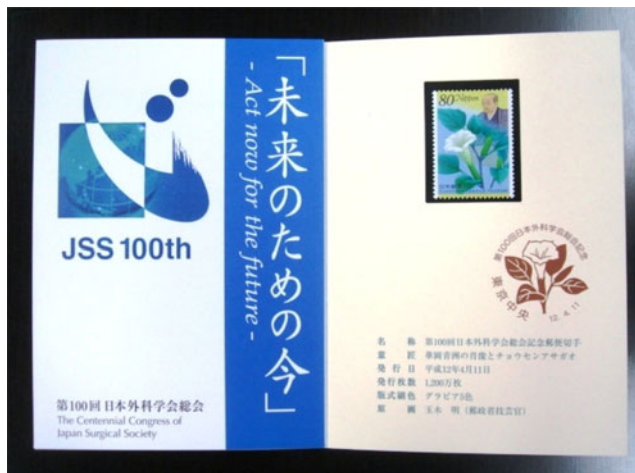


Fig. 6 Commemorative stamp of the 100th Annual Congress of the Japan Surgical Society (Congress President: Masaki Kitajima)

Subsequently, Japanese doctors who studied Dutch medicine founded private schools in various places nationwide, prompting the development of Western medicine. Among the distinguished private schools are Tekijuku, established by Koan Ogata (1810–1863), and Sakura Juntendo, founded by Taizen Sato (1804–1872). At Tekijuku, Ogata and other scholars called economics, medicine, and other disciplines from Europe “Dutch studies” and encouraged students to study them. The origins of the present-day Keio University and Osaka University go back to the spirit of the people who studied at those schools.



Fig. 7 Yukichi Fukuzawa (Keio University)

One of the students at Tekijuku was Yukichi Fukuzawa (1835–1901; Fig. 7), who later drove politics, culture, and education in Japan and founded Keio Gijuku (now Keio University). At this school, students learned the basics of medical care by studying the Dutch *Enchiridion Medicum* (*Medical Handbook*), written by Christoph Hufeland (1762–1836) and translated by Ogata. In 1883, Fukuzawa stressed the importance and future potential of endoscopes in his paper “Ijutsu no Shinpo (Progress of Surgical Technique),” predicting that endoscopes, particularly laparoscopes, would gain popularity in the future, over a century ago.

Circumstances under which German medicine was adopted after the Meiji restoration

In 1868, the Edo shogunate collapsed, and the newly established Meiji government opened Japan to the rest of the world. In an effort to introduce European civilization, which had been closed to the Japanese under the 250 years or so of national isolation policy, the Meiji government followed Western styles when framing policy and building social systems. Emperor Meiji issued the Charter Oath, stating that “knowledge shall be sought all over the world,” and actively sent missions of officials to the United States and Europe to discover new systems and learning that best suited Japan [7].

In terms of medicine, the government decided to learn from Germans, invited teachers from Germany, and provided medical education in German. Medical education in German continued until several years after 1945, when World War II ended. It is interesting that the Johns Hopkins University in the United States introduced German medical education methods and began lectures based on these methods in 1876, nearly at the same time as the Meiji government did so [8].

In 1871, two German doctors, Leopold Müller (1824–1893) and Theodor Hoffmann (1837–1894), arrived to teach at the Tokyo Medical School, which was later to become the University of Tokyo. In addition, medical teachers invited from Germany, including nine in Osaka and two in Kyoto, started medical education in Japan as it re-emerged as a modern nation.

As opposed to German medicine introduced by the new government after the Meiji Restoration, there were some officials who argued that Anglo-American medical education should be provided. Toan Matsuyama (1839–1919; Fig. 8), who studied under the American doctor James Curtis Hepburn (1815–1911), and Kanehiro Takagi (1849–1920), who studied at St. Thomas's Hospital in the United Kingdom, provided British medical education. In 1873, Matsuyama founded Keio Gijuku Igakusho, which laid the foundation for the present-day Keio University School of



Fig. 8 Toan Matsuyama (courtesy by Dr. H. Matsuyama)

Medicine. Takagi established what is today called the Jikei University School of Medicine.

Evaluation of introduction of German medicine to Japan

German medicine was introduced to Japan at a time when it had reached the world's highest level, and it can be said that the Meiji government evaluated it correctly when it adopted German medicine as its beacon in the medical field.

Among the German teachers posted at the University of Tokyo, Erwin von Bälz (1849–1913), a scholar of internal medicine, and Julius K. Scriba (1848–1905), a scholar of surgical science, both rendered distinguished service in developing medical education in Japan (Fig. 9). Scholars taught by them later took over their positions. Fritz Härtel (1880–1940), a German scholar sent by V. Schmieden (1872–1945), became the first professor of surgery at Osaka University [9].

Many of the young Japanese doctors who learned the new style of medicine from these German scholars traveled to Germany, home of Western medicine, to study it there. In those days in Germany, a center of learning for young Japanese doctors, a galaxy of medical doctors such as Bernhard von Langenbeck (1810–1887) and Theodor Billroth (1829–1894) in surgery, Rudolf Virchow (1821–1902) in pathology, and Robert Koch (1843–1910) in bacteriology were bringing outstanding results to the rest of the world.

Many of the students from Japan used Berlin as a center of information gathering and then dispersed to various parts of Germany for study. At one time, there were more than 40 Japanese medical students studying in Berlin.



Fig. 9 Statues of Bälz and Scriba at the Faculty of Medicine, the University of Tokyo (provided by S. Hiki)

Shibasaburo Kitasato (1853–1931), who worked at Koch's research institute (Fig. 10), as well as Sahachiro Hata (1873–1938), Kiyoshi Shiga (1870–1957), and other doctors who studied with Paul Ehrlich (1854–1915), left behind such great achievements that they were seen as



Fig. 10 Shibasaburo Kitasato and Robert Koch (post card issued by the Kitasato Institute)



Fig. 11 Kitasato and his disciples (post card issued by the Kitasato Institute)

possible winners of the Nobel Prize (Fig. 11). It is virtually impossible to exhaust the list of young Japanese doctors who studied in Germany at that time. Other examples include Sankichi Sato (1857–1943), who became Billroth's pupil; Goichi Fujinami (1880–1942), who learned roentgenology in Vienna; Akira Fujinami (1870–1934) and Aihiko Sata (1871–1950), both of whom mastered pathology in Freiburg; Keiji Okajima (1882–1936), who studied anatomy; and Tomosuke Maeda (1887–1975), who did research in surgery. After returning to Japan, many of these young doctors laid the foundations for modern medical education at various universities in the country and brought brilliant results in their respective areas of expertise. Kitasato combined German medicine, which integrated basic research with clinical treatment, with British medicine, which focused on clinical medicine, and established a school of medicine at Keio University in 1917.

Studying in Europe was one of the status symbols among Japanese doctors, but quite a few people neglected their medical studies, absorbed Western culture alone, and returned home. One of them, Ogai Mori (1862–1922), later became a prominent novelist and literary critic. According

to *Who's Who in Medical Doctors in Great Japan*, a register of people who acquired a doctor's degree in medicine in those days, 80% of those listed therein studied in Germany.

Young doctors who studied in Germany were not limited to men. Mizu Takahashi (1852–1927), the second Japanese woman doctor, became the first female auditor at the University of Berlin, which refused admission even to German women at that time [10].

Hayari Miyake a disciple of von Mikulicz

Two Japanese surgeons, Tsugushige Kondo (1865–1944) and Hayari Miyake (1866–1945), both of whom received tutelage from Scriba at the University of Tokyo (Fig. 12), studied in Germany, and Kondo later became a professor at the first department of surgery at the university.

Miyake studied sutures, surgical operations, and gastroscopy with Johann von Mikulicz (1850–1905) at the University of Breslau (current the University of Wrocław (Wrocław), Poland) twice, starting in 1903. Mikulicz placed such great confidence in Miyake that he even offered to adopt him as his child. He advised Miyake that he should be engaged in medical education in Japan, and that he should spread German surgical science there. Upon returning to Japan, following his mentor's advice, Miyake became a professor at Kyushu University and trained many pupils there. After Mikulicz passed away in 1905, his death mask was presented to Miyake in Japan [11].



Fig. 12 Hayari Miyake (provided by S. Hiki)

Clinically, Miyake performed Japan's first surgery to remove a brain tumor and applied surgical procedure taught directly by Billroth to gastric cancers. He also opened the way for gastric endoscopy. Because of these results, he served as president of the Japan Surgical Society twice. Some of the most prominent achievements of Miyake [12] and his best disciple, Hakaru Hashimoto (1881–1934) [13], written in European languages, are found in the Langenbeck journal. In 1928, Miyake became the first Japanese editor of the journal *Deutsche Zeitschrift für Chirurgie* (*German Journal of Surgery*).

In 1927, in reply to a request by the Deutsche Akademie der Naturforscher Leopoldina (German Academy of Sciences Leopoldina), the Japanese embassy in Germany recommended Shibasaburo Kitasato, Kiyoshi Shiga, Saha-chiro Hata, Yoshihiko Sata, Katsusaburo Yamagiwa (1863–1930), a pathologist, Keizo Dohi (1866–1931), a pioneer in the field of dermatology, and Hayari Miyake as members of the academy.

Among Miyake's fellow researchers in Mikulicz's laboratory at the University of Breslau were Ferdinand Sauerbruch (1875–1951) and Wilhelm Anschütz (1870–1954), and the warm interchange between Miyake and his colleagues continued in subsequent years. However, as a world war loomed ahead, interchange with foreign countries became difficult. Peace was threatened and even the progress of science was impeded.

Around 1934, there were still some people who went to Germany to study. Hiroshi Miyake (1901–1994), son of Hayari Miyake, studied at the University of Kiel; in 1936, when he attended a meeting (Versammlung) of the DGCH held at the Langenbeck–Virchow House in Berlin, he was astonished to see a huge framed photograph of Führer Adolf Hitler hung behind the rostrum where participants

were going to discuss learning (Fig. 13). After returning to Japan, he became a professor of surgery at Kyushu University. He presided over the Japan Surgical Society and was later elected an honorary member of the North German Surgical Society (Norddeutsche Chirurgie) [14].

The medical community underwent major changes

In 1945, Germany and Japan suffered a crushing defeat in World War II.

In the post-war period, although the United States surpassed others as an advanced country in medicine, some Japanese doctors still studied in Germany to learn their medical traditions and look at the starting point of clinical medicine. Records show that Japanese surgeons made great achievements at universities in Berlin, Bonn, Düsseldorf, Heidelberg, Hamburg, Kiel, Munich, and other cities.

Among these doctors, Yoshio Mishima of the University of Tokyo, Yoshiki Hiki of Kitasato University [15], and Masayoshi Okada of Kobe University continued interchange between Japan and Germany after they had studied in Germany, and were elected as honorary members of the DGCH. Keiichi Maruyama of the National Cancer Center and Masaki Kitajima of Keio University, both of whom had close exchanges with DGCH, actively gave lectures on the latest gastro-surgical treatment in Japan at international academic meetings, received many German students at their institutions, and sent doctors to Germany for academic exchange. In recognition of their distinguished services, the German Surgical Society elected them as its honorary members.

In 1990, Mishima worked with J. Heberer and H.J. Peiper to establish the German and Japanese Surgical Societies, and planned to hold a triennial joint meeting alternately in Germany and Japan. The first joint meeting took place in Tegernsee in 1990, and J.R. Siewert and M. Hölscher, both in their youth, devoted their energies to organizing the event. The second joint meeting was held in Makuhari, Japan, in 1993 at Mishima's initiative; the third in Düsseldorf in 1996 at H. Röher's initiative (Fig. 14); and the fourth in Kyoto in 1999 at the initiative of Hiki and Yoshiro Yamaoka. The fifth joint meeting took place in Berlin in 2002 with P. Neuhaus and E. Kraas as its promoters, and the sixth was convened by Kitajima and Hiroyuki Kato in Sapporo in 2005.

These joint meetings have brought together many professors who drove surgery in the two countries, including the past presidents of the Japan Surgical Society and its German counterpart. Participants have engaged in active exchange of opinions about topical surgery that interested them at each meeting.

At the same time, in 1990, W. Hartel, secretary-general of the DGCH, responded to Mishima's call for an exchange



Fig. 13 A commemorative post card of the 30th meeting of the DGCH (Langenbeck–Virchow Hausnite in Berlin). A huge framed photo of Führer Adolf Hitler hung behind the rostrum



Fig. 14 The 3rd German and Japanese Surgical Societies joint meeting in Düsseldorf in 1996 (provided by S. Hiki)

of young surgeons between Japan and Germany, and this program started under the leadership of the German and Japanese Surgical Societies (Fig. 15). Later, through the efforts of H. Bauer, secretary-general of the DGCH, and Kitajima, president of the 100th Annual Congress of the Japan Surgical Society, this exchange program was adopted as an official project of both the Japan and German Surgical Societies and has continued to the present day.

Moreover, one young Japanese surgical oncologist is invited to the DGCH annually through the Monika Stipendium, a scholarship system established by E. Kraas to respond to the wishes of cancer patients to treat and eradicate cancer.

The Japan Surgical Society had elected J. Scriba as its German honorary member in 1899, but it did not confer the



Fig. 16 Beger and Siewert were elected as Honorary Member of the Japan Surgical Society (provided by S. Hiki)

title of honorary member on any foreigner in the subsequent century or so. After World War II, R. Pichlmayr joined the Japan Surgical Society's list of honor in 1996, and J.R. Siewert and H.G. Beger were elected in subsequent years (Fig. 16).

Many Japanese transplant surgeons studied under Pichlmayr for varying periods of time, playing a pioneering role in the field of transplantation. Siewert, together with Teruo Kakegawa, contributed to the development of the esophageal surgery fields in Japan and Germany and gave a number of lectures in Japan. In the fields of pancreatic surgery, endotoxin, and carcinogenesis, the gastric cancer group at the University of Tokyo sent many students, including disciples of Fujio Hanyu, to Germany, where they studied with Beger.

Surgical treatment of gastric cancer

Research in gastric cancer, which began with T. Billroth, was taken over by Anton von Eiselsberg and J. Mikulicz, and in 1921, in his book *Igan (Gastric Cancer)*, Hayari Miyake expatiated upon the disease in a systematic way, from the pathology to treatment, for the first time. After that, particularly that of gastroscopies in 1950, the diagnosis of gastric cancer made striking progress in Japan, and furthermore endoscopes started to be applied to the treatment of this cancer [16, 17]. Today, through the efforts of Kitajima, Yuko Kitagawa, and Seigo Kitano, research in gastric cancer is continuing to develop, as typified not only by the existing application of endoscopy to gastric cancer operations but also by endoscopic and laparoscopic treatment and research into the sentinel node mapping.

Extended radical gastric operations performed by Mitsu-masa Nishi [18] and Maruyama on gastric cancer in Japan attracted global limelight, and many German researchers came to Japan for short- or long-term visits to the National



Fig. 15 German Surgical Society in Berlin, in 2000 (Honorary members; Kitajima, Hiki, and Maruyama, with young surgeons) (provided by S. Hiki)

Cancer Center, the Cancer Institute of the Japan Foundation for Cancer Research's hospital and university facilities. The high quality of gastric cancer treatment in Japan was recognized anew. Due to these results, the International Gastric Cancer Association was founded, thanks to the energetic cooperation of J.R. Siewert in 1991, and it has developed steadily to the present day.

In 1972, P.C. Alnor, a graduate of the University of Kiel who had just become director of Klinikum Braunschweig, came to Kitasato University. As he planned to establish an endoscopic center in his own hospital, he studied under the guidance of Hiki at the university for 6 months to receive training in gastric endoscopy, particularly endoscopic retrograde cholangiopancreatography (ERCP), which had finally started to develop.

In addition, in 1992, Hiki collaborated with E. Kraas to compile and publish a book entitled *300 Jahre Deutsche–Japanische Beziehungen in der Medizin (300 Years of German–Japanese Relationships in Medicine)* through the publisher Springer [19]. In 1997, because of these achievements, he was recommended as a member of the German Academy of Sciences Leopoldina (Deutsche Akademie der Naturforscher Leopoldina).

Japanese surgeons and Langenbeck's Archives of Surgery

Langenbeck's Archives of Surgery, which has an illustrious history and tradition, issued its first volume in 1860 and celebrates the 150th anniversary of its foundation this year. For the celebration of this historic anniversary, a special article (issue) is going to be published. Owing to the passion and enthusiasm of Professor Hans G. Beger, editor in chief, *Langenbeck's Archives of Surgery* has maintained its status as the world's top journal in the field of surgery. At present, the University of Ulm, Faculty of Medicine's library houses all 364 volumes of *Langenbeck's Archives of Surgery*.

Ever since the Meiji government decided to learn medicine in German, it has been a status symbol and a dream for Japanese medical scientists to submit papers to German academic journals, particularly *Langenbeck's Archives of Surgery*. At a time when only a limited amount of information from overseas was available, it is not hard to imagine how important it was, after one's research had been favorably evaluated by an academic advisor, to write a paper under the advisor's guidance and contribute it to a German academic journal.

To mark the historical 150th anniversary (anniversaries) of *Langenbeck's Archives of Surgery*, the editors of the journal decided to publish a special supplement (issue). In conjunction with this supplement, I asked the editor in chief to search in the database for papers that had been submitted to the journal by Japanese surgeons.

Surprisingly, 125 years ago, in 1885, Dr. Hashimoto had already reported on the surgical treatment of 11 different diseases such as exostosis, cancer, sarcoma, aneurysms, hepatic abscesses, congenital anal atresia, and duodenal atresia, as well as the sterilization of wounds. There are six other papers submitted by Japanese surgeons in its early period.

To Japanese surgeons in those days, having their paper published in *Langenbeck* must have been as honorable as winning a major prize. Even today, the Japanese find it a great honor to have his/her paper published in this prestigious academic journal that boasts of a long tradition.

Conclusion

Since *Langenbeck's Archive* came to be published in English, thanks to the efforts of Professor Beger, it has become easy to submit papers to the journal from Japan, where English has become a common language in the medical world. I hope that surgeons in Germany and Japan, both of which have an over 300-year history, will work hard and maintain scientific exchange while learning from each other's strong points (Fig. 17).

Currently, Masaki Kitajima [20] is the Editor, and Keiichi Maruyama [21, 22], Naoki Hiki and other 8 Japanese doctors are the Editorial Board members for *Langenbeck's Archives of Surgery*.

It was a difficult task to discuss the history of exchange between German and Japanese surgery with a glorious history of 300 years given a limited number of pages. Nevertheless, I was able to do so thanks to the support of many people, and am very satisfied with the results. In particular, I received valuable advice and support from Ms. Sumiko Hiki, the wife of Professor Emeritus Yoshiki Hiki (co-author of this article). Not only is she the granddaughter of the late Dr. Hayari Miyake, who contributed tremendously to foster exchange between Japanese and German Surgical Societies, she has also watched over Japanese and German surgery over the years from the standpoint of an essayist. I would like to take this opportunity to thank her for her advice and support.



Fig. 17 German Surgical Society in Berlin in 2000 (provided by S. Hiki)

As the author of this article, I would be more than happy if, after this article is published, young surgeons from Japanese and German Surgical Societies would engrave the unfading passion and incessant efforts of their predecessors in their hearts and further strengthen the bonds of academic exchange between the surgical communities in the two countries.

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