

Minutes of the Fifth ABCC/RERF History Forum

Speaker: Mr. Yasutaka Ohgushi, retired Assistant Chief of Nagasaki Secretariat

Moderator: Mr. Satomichi Kaneoka, Assistant Chief of Nagasaki Secretariat

Date & time: 15: 00-16: 10, Thursday, December 17, 2015

Place: Teleconference between the conference room #4 of the Nagasaki Laboratory and the Auditorium of the Hiroshima Laboratory

(Honorifics omitted)

Kaneoka: Today's speaker is Mr. Yasutaka Ohgushi, retired Assistant Chief of Secretariat of the Nagasaki Laboratory, who joined the Department of Medicine of the ABCC Nagasaki Laboratory as a technician in July 1959 and worked on the project of anemia among Japanese people. Subsequently, he was engaged in hematological laboratory work at the Division of Clinical Laboratories for 33 years. In 1993, he was transferred from the Clinical Laboratories Division, where he was chief of technicians, to the Clinical Contacting Section as section chief, at the age of 54. In 1998, he assumed the position of Assistant Chief of the Nagasaki Secretariat after serving as the Clinical Administration Section Chief and then as Administrative Assistant Chief of the Department of Clinical Studies. He retired at the end of December 1999. Please explain why you joined ABCC.

Ohgushi: Dr. Blaisdell, a U.S. hematologist, came to the Nagasaki Laboratory to study anemia among Japanese people and recruited college graduates for the posts of secretary/technician. At that time, I could not join the ABCC because I was a high school graduate and already worked for another company. Four months later, however, Dr. Blaisdell recruited university/high school graduates for additional posts. After undergoing oral exams by Dr. Blaisdell, I was employed as a member at the Department of Medicine to work on the Japanese anemia research project. In those days, a majority of the anemia cases in Japan were the iron-deficiency type.

Kaneoka: Did you know much about ABCC at that time?

Ohgushi: In those days, the ABCC facilities were located in Sakurababa, which was a four-or five-minute walk from my house. In my childhood, ABCC's parking lot used to be my playground.

Kaneoka: Did you have any hesitation about being employed by US-sponsored ABCC?

Ohgushi: Yes. My uncle's acquaintance recommended that I not join ABCC because of the uncertain sustainability of ABCC.

Kaneoka: Why did you decide to resign from your company and join ABCC? For example, were salary or work conditions better?

Ohgushi: The amount of salary was nearly equivalent to that at the other company, but we had two days off per week (Saturday and Sunday).

Kaneoka: Even when I joined RERF, the five-day workweek system was not popular in Japan, and the every-other-Saturday-off system had just been introduced. In your day, ABCC was unique in this regard, wasn't it?

Ohgushi: Yes, the six-day workweek system was very popular.

Kaneoka: I heard that ABCC had employed the U.S. holiday system, including U.S. Independence Day. Is that correct?

Ohgushi: My memory is hazy, but yes, at least for the first several years.

Kaneoka: Did Dr. Blaisdell conduct your oral exam in English?

Ohgushi: He had just arrived in Japan, so he was not fluent in Japanese. A translator helped me with my oral exam, and I was asked questions in Japanese.

Kaneoka: Do you still remember contents of these questions?

Ohgushi: These questions were related to acid and base, but I've forgotten the specifics.

Kaneoka: Weren't you averse to U.S. citizens?

Ohgushi: Dr. Blaisdell seemed to be of Asian descent, not Caucasian.

Kaneoka: Please explain the staff of the Department of Medicine Laboratory of Hematology, to which you were first assigned.

Ohgushi: I remember only the Japanese staff members.

Kaneoka: How many technicians and nurses belonged to the Laboratory of Hematology?

Ohgushi: There were four technicians, including two employed after me. Public health nurses were transferred from the Clinical Contacting Section.

Kaneoka: I've heard that, in your time, technicians learned techniques after they joined ABCC.

Ohgushi: The staff learned U.S.-style laboratory procedures using one textbook prepared by Dr. Blaisdell.

Kaneoka: Please explain the work at the Laboratory of Hematology.

Ohgushi: There hasn't been much change in laboratory procedures and items.

Kaneoka: Do you still remember the laboratory procedures of the time?

Ohgushi: The hematocrit test, which examines the proportion of erythrocytes per unit amount of blood, progressed by three steps while I belonged to the laboratory: Initially, a blood sedimentation tube was required for the test; and finally, the test could be performed with only a very small quantity of blood.

Kaneoka: I assume that hemoglobin measurements were conducted for the anemia study. Please explain the laboratory procedures.

Ohgushi: In those days, ABCC was the only organization in Japan that employed the Coleman flame photometer as well as the cyanmethemoglobin method, in which hemoglobin is determined in reagent-treated erythrocytes from the percent of transmittance or absorbance, through the use of a standard curve. In Japan, the Sahli method, which visually measures color density, was popular. Therefore, other hospitals in Nagasaki wanted ABCC's devices and reagents.

Kaneoka: Were there any occasions for information exchange between ABCC and other hospitals?

Ohgushi: Study sessions were held. Laboratory technicians from other hospitals visited ABCC and discussed various issues, including correlated changes between the cyanmethemoglobin method and the Sahli method.

Kaneoka: Please explain methods for blood collection at the time, which was required for the anemia study.

Ohgushi: According to a schedule prepared by public health nurses, teams of public health nurses and laboratory technicians visited subjects' houses one by one, by a jeep driven by ABCC's driver. Laboratory technicians conducted blood drawing.



(* Photo: Jeeps)

Kaneoka: It is surprising that technicians were in charge of blood collection. Did you work on blood collection?

Ohgushi: Yes.

Kaneoka: Did you practice blood drawing?

Ohgushi: Yes, technicians practiced by collecting blood from one another.

Kaneoka: How did you bring blood samples back to ABCC?

Ohgushi: Heparinized glass tubes were used to collect 2 to 3 cc's of blood from subjects.

Kaneoka: Were the collected blood samples chilled?

Ohgushi: No, those samples were left out at room temperature. Each team visited four to five subjects' houses in the morning and directly returned to ABCC to perform prompt processing.

Kaneoka: I assume that, in those days, road conditions were not satisfactory. Did you ever walk a long distance to visit subjects' houses?

Ohgushi: Yes. For example, after getting off a jeep at the main entrance of the Mitsubishi Heavy Industries, Ltd., which was located in Akunoura, we walked around the facilities. On another occasion, we went over a mountain to visit subjects' houses in Kihachi or Kosedo.

Kaneoka: How did you prepare a syringe in those days?

Ohgushi: We sterilized syringes using a large-size autoclave, a piece of equipment that uses steam at high pressure to sterilize objects. In a preparatory room, we sharpened the syringe needles on a whetstone and prepared all the instruments required for blood collection.



(*Photo: Mr. Ohgushi in a lab)

Kaneoka: After you joined ABCC, the Act on Clinical Laboratory Technicians, etc. was established, creating a national licensing system for clinical laboratory technicians. When did you take the national license examinations?

Ohgushi: The first examination was conducted immediately after I joined ABCC. A few ABCC staff members passed the exam, and other technicians were encouraged to take a second exam held in the following year.

Kaneoka: How did you prepare for the exam? Please explain the subjects in the exam.

Ohgushi: There has been little change in subjects: hematology, biochemistry, and pathology. The exam consisted of general questions, but I was not fully prepared. Furthermore, even though a minimum of two year's working experience was a prerequisite for the exam, I failed to meet this prerequisite. Because the number of technicians was limited in those days, however, I was allowed to take the exam. I wonder if special consideration might have been given.

Kaneoka: You have expertise in hematology, but how did you prepare for exams in biochemistry and bacteriology.

Ohgushi: Scientific journals in hematology and biochemistry were already published, but there was no journal in bacteriology. I asked my acquaintance, who worked at the Hiroshima Prefecture Institute of Health, for help. These subjects were not very complicated, so I could master them..

Kaneoka: I heard that a majority of the ABCC technicians got qualified at the first and second exams.

Ohgushi: Yes.

Kaneoka: After you were certified as a clinical laboratory technician, did ABCC change the job title?

Ohgushi: No. However, physicians at other hospitals called us "Labortechniker" (laboratory assistant in German), which sounded discriminatory to me. (At ABCC, we were called "technician.")

Kaneoka: How long did Dr. Blaisdell stay at ABCC?

Ohgushi: His term of appointment at ABCC was two years. When he returned to the U.S., I was transferred to the Division of Clinical Laboratories.

Kaneoka: What projects did you work on at the division?

Ohgushi: Because the area of my expertise was hematology, I worked on a leukemia study.

Kaneoka: How was the leukemia study conducted?

Ohgushi: When local hospitals found leukemia cases among hospitalized patients, they gave notice to ABCC.

Kaneoka: Were these hospitals obligated to notify ABCC?

Ohgushi: In addition to ABCC physicians, a large number of physicians were dispatched to ABCC from hospitals in Nagasaki, so I assumed that ABCC had a connection with these local hospitals through communication between ABCC physicians and those at hospitals. When we were notified of a new leukemia case by a hospital, a physician and technicians went to the relevant hospital to perform bone-marrow puncture. The physician performed bone-marrow puncture, and technicians prepared glass slides, spreading blood on these slides.

Kaneoka: Based on my work experience at a hospital, it seems difficult to spread a drop of blood on the glass slide due to a mass of cells.

Ohgushi: It was sometimes difficult to spread a drop of greasy bone marrow on oleophobic glass slides, but there was no problem in most cases. However, it was harder to wash a greasy glass slide. Alcohol and chromium sulphates were employed.

Kaneoka: Was there job rotation at the Division of Clinical Laboratories?

Ohgushi: As time went by, knowledge in bacteriology and biochemistry became indispensable, so technicians voluntarily asked for job rotation. I changed my specialty on an annual basis, from hematology to bacteriology, and from bacteriology to biochemistry. When I was in charge of biochemistry, Newlin-san came from the U.S. to the division in Nagasaki and instructed us in measuring serum iron levels. Since serum iron measurements had not been conducted in Nagasaki, we needed to start from scratch: She provided a 4- or 5-page manual for serum iron measurements, but I could not understand English. I asked my acquaintance, an English teacher at the Mitsubishi Electric Corporation, to jointly translate the relevant manual into Japanese. Eventually, the translation was completed in three months, and this was the hardest part of my work at ABCC.

Kaneoka: Did the Hiroshima and Nagasaki Laboratories exchange research-related information?

Ohgushi: I heard that these laboratories had kept in constant touch by phone. Hiroshima staff members sometimes visited the Nagasaki Laboratory, and I sometimes visited Hiroshima. Before Dr. Blaisdell went back to the U.S., he dispatched two technicians to the Hiroshima Laboratory for one week each for training purposes. However, I wondered if he had wanted to give us a chance to enjoy taking a tour of the laboratories in Hiroshima. In Hiroshima, I learned how to use a microscope for the first few days and then took a tour of the Hiroshima facilities. This one-week visit holds a lot of memories for me.

Kaneoka: You were transferred from the technical position to an administrative position as the

chief of the Clinical Contacting Section at the age of 54, and you were eventually promoted to Assistant Chief of Secretariat. Did you have a feeling of hesitation about the change in work category?

Ohgushi: Yes, that was a real bolt out of the blue. I assume that the staff at the Clinical Contacting Section was surprised with this personnel transfer, because I was a novice in administrative work. However, I received a great deal of cooperation from them.

Kaneoka: Did you find any differences in the approach to work between technical positions and administrative positions?

Ohgushi: Technical work has to be conducted in conformity with established methods and documents, which did not cause me any concerns. In the case of administrative work, however, it was necessary to read a situation correctly. For example, I found difficulty in reception work because flexible responses were required depending on individual study subjects.

Kaneoka: Do you mean that such arrangements were left to individual discretion?

Ohgushi: Yes.

Kaneoka: Transfer to the Clinical Contacting Section was conducted within the Department of Clinical Studies, but I think that transfer to the Secretariat was more difficult for you.

Ohgushi: Honestly, I felt embarrassed with that transfer because the Secretariat was not short on staff. Anyway, I started with assistant work and, thanks to cooperation from the Nagasaki and Hiroshima staff, improved my ability to plan/hold a variety of events smoothly.

Kaneoka: I heard from your colleagues that, in ABCC days, Christmas parties and ballroom dancing were held. Do you have any special memories?

Ohgushi: I attended the year-end party twice and also an afternoon party held at a reserved nightclub.

Kaneoka: In what areas of Nagasaki did the U.S. staff reside? Did you visit their houses?

Ohgushi: The housing for U.S. staff members, called the Residence of the Matsuda, was located in the middle of a mountain, and it was about a 100-meter walk on a slope from the Nakashima River, which was famous for stone bridges and flowed behind ABCC. However, I have never entered that residence.



(* Photo: Residence of the Matsuda, taken in January 1988)

Kaneoka: (To the audience) Are there any questions you want to ask Mr. Ohgushi?

Hiroshima: I heard that Mr. Ohgushi had resided in a house four- or five-minutes' walk from Sakurababa. Did your house receive damage from the atomic bombing?

Ohgushi: My house was located 3.6 km far from the hypocenter but did not fall into ruin. However, the blast from the bomb blew away paper screens and distorted the framework, resulting in a number of gaps in the house. These distortions and gaps were not fixed for several years after the bombing.

Nagasaki: Around the time when you joined ABCC, many organizations used to prepare reagents on their own. Did ABCC import a majority of the reagents from the U.S.?

Ohgushi: We could get made-in-Germany dyeing reagents via the U.S., but other reagents were made in Japan. Due to the shortage in devices, we washed and reused them.. However, the shortage in test devices and reagents was more serious at university laboratories. When I visited one such lab, a technician worked on operations in a dark room all alone. I felt that ABCC could procure plenty of test devices and reagents.

Kaneoka: I heard that the adult T-cell leukemia study employed an advanced technique for ATLA (adult T-cell leukemia-associated antigen)-related tests. Was it conducted in collaboration with universities?

Ohgushi: ATLA-related tests revealed differences between Hiroshima and Nagasaki: we found more positive cases in Nagasaki than in Hiroshima. These tests were conducted using antigen-antibody methods: we fixed positive cells, added serum collected from subjects, observed chromogenic reaction, and evaluated the intensity from (-) to (+4).

Kaneoka: Did ABCC produce such antigens by culturing positive cells?

Ohgushi: Such cells used to be provided by the Nagasaki University on an as-needed basis. After repeated provision, however, a person in charge at the university acted cranky. Therefore, we made sincere efforts to make such samples available to ABCC research scientists, resulting in continued supply.

Kaneoka: Thank you for your precious talk. Your continued guidance is expected.

Ohgushi: Thank you.



Mr. Ohgushi



Mr. Ohgushi, left and Mr. Kaneoka