Minutes of the Sixth ABCC/RERF History Forum

Speaker: Dr. Hideya Tamagaki, former ABCC physician in the Departments of Genetics and Medicine, former ABCC Deputy Department Chief

Moderator: Mr. Takanobu Teramoto, Executive Director, Chairman of the Historical Materials Management Committee

Date: 15:00 – 16:00, April 21 (Thurs.), 2016

Place: Videoconference: Auditorium in Hiroshima Laboratory and Conference Room 4 in Nagasaki Laboratory

(Honorifics omitted)

Teramoto: I would like to express my thanks to all of you who are attending this forum despite your busy schedules.

The Radiation Effects Research Foundation (RERF), which was established in April 1975, has been engaged in research and studies on radiation effects involving A-bomb survivors and their children since the days of the Atomic Bomb Casualty Commission (ABCC). ABCC started its research activities in 1947 and continued for 28 years. The history of RERF is 13 years longer than that of ABCC, and this year marks the 41st anniversary of its establishment. The citizens of Hiroshima and Nagasaki remember ABCC in connection with the A-bombs dropped by the U.S. We find it unfortunate that the memories of ABCC are passed on to future generations with rather negative images, such as “ABCC only studied A-bomb survivors but provided no treatment,” or “ABCC treated survivors like guinea pigs.” However, most of the studies on A-bomb survivors and their children, which continue to this date, were initiated by ABCC. And today, the research results from these studies are recognized as the gold standard of radiation risk research, with the resulting scientific achievements given high marks. Therefore, this ABCC/RERF History Forum series is designed to offer current RERF employees the opportunity to look back on the history of research with A-bomb survivors and gain an accurate understanding by listening firsthand to the experiences and stories of former ABCC/RERF employees. This forum marks the sixth such occasion since the forum’s commencement in 2013. Please visit our public website for the archives of past history forums.

Also, we have invited the press to this forum with the goal of releasing information about our activities. I would like to express my gratitude for their participation.

Today, we have invited Dr. Tamagaki as a speaker; he is accompanied by his daughter.

First of all, let me introduce Dr. Tamagaki.

Hired by Hiroshima ABCC in 1949, Dr. Tamagaki was engaged in health examinations and research activities as a physician for 16 years, until 1965. In those days, ABCC and the Japanese National Institute of Health (JNIH) were conducting research jointly. A branch office of JNIH was established in the ABCC facility, and Dr. Tamagaki worked as an employee of JNIH. Speaking of August 6th, 1945, Dr. Tamagaki said that although he was in Yamagata Prefecture for evacuation, his home in Hiroshima was only 1.3 kilometers away from the hypocenter. His mother lost her life there, and both his father and sister were

severely injured. As a medical practitioner, his father continued examining many survivors, even though he was suffering acute effects of the bombing.

Now, Dr. Tamagaki, please tell us how you arrived at ABCC.

Tamagaki: At first, part of the Hiroshima Red Cross Hospital was leased to establish ABCC, and the Department of Genetics started to function. Since I was an intern at the Hiroshima Red Cross Hospital, I was within close range of the activities of the Department of Genetics. I often saw five or six jeeps parked at a square in front of the hospital, and doctors and nurses got into a jeep as a group to go for house calls. In those early days, there was great concern that babies born to parents exposed to radiation might have increased incidence of abnormalities. For this reason, ABCC formed and dispatched medical teams to visit every single house to examine babies. Doctors only examined visible abnormalities on the body, which meant that newly graduated doctors without ample clinical experience could be engaged in this paid job. Many doctors applied for this position as a temporary job and were immediately hired. I did not have any difficulties getting this job, either. ABCC was a joint research institution organized by the Japanese Ministry of Health and Welfare and the U.S. government. I was employed as a Japanese staff person, but I did the same work as ABCC employees; that is, perform health examinations on newborns.

Teramoto: Which institute paid more?

Tamagaki: ABCC did. I negotiated with Dr. Maki, branch manager of JNIH, for higher pay. I started to receive the difference after that.

Teramoto: When visiting the survivors for health examinations, you rode in a jeep with a driver and nurses. Is that correct?

Tamagaki: Yes. In those days, we did not have cars in Japan, so I enjoyed riding in a jeep. Calling on houses one by one, we presented towels and LUX brand soaps after the examination, which we think was received favorably. Unlike during a difficult time I went through later at the Department of Medicine, I was favorably accepted by the study participants.

Teramoto: I heard that nurses who accompanied you on the examination visits are in attendance today.

Tamagaki: Yes, two of them.

Teramoto: Ms. Minato and Ms. Tanaka. Am I right?

Tamagaki: Yes, they are my fellow members.

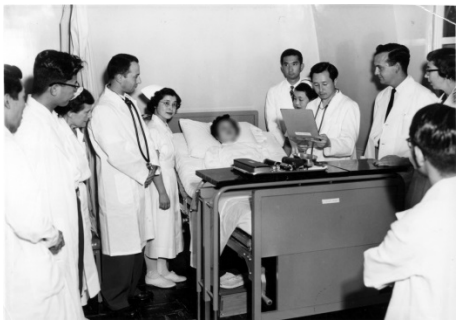
Teramoto: I understand that although you were able to conduct research smoothly at the Department of Genetics, you had a hard time at the Department of Medicine. What kind of hardships did you go through?

Tamagaki: The Department of Genetics completed its mission three years after the thorough examination of newborns. After that, physicians were transferred to other hospitals, but I requested to continue my work at ABCC and was accepted in the Department

of Medicine.

Teramoto: Unlike the Department of Genetics, where you examined children, you examined adults at the Department of Medicine. What kind of differences did you notice?

Tamagaki: Working in the Department of Genetics did not require English ability, but at the Department of Medicine, we had an American chief and several young American medical staff together with four or five Japanese doctors. When I first joined, the American physicians used to double-check the survivors after the Japanese physicians conducted a health examination. Medical reports mailed to them were written by us in English and translated into Japanese. I struggled with English and I had a communication problem with American staff in English for a while.



Dr. Tamagaki, the third from right (1954)

Dr. Tamagaki (1962)

Teramoto: You said “communication” as a translation for the Japanese word “*ishi*.” The Japanese word “*ishi*” also means “doctor.” It’s such a nice pun. Anyway, I understand that people were not taught English in the pre- and war-time periods.

Tamagaki: I actually hated English and scored the lowest mark in English when I was in middle school. Imagine a person like me being employed by ABCC…. Daily work required a lot of effort in the beginning, to say the least. In my opinion, people can manage to acquire foreign languages if needed, and in fact, I was able to communicate in English after a year, which made my work less difficult.

Teramoto: Did you receive lectures or guidance from American doctors?

Tamagaki: The department chiefs at that time were Americans who had been working as assistant professors or their equivalents at universities in the U.S. My first departmental chief was Dr. Tinsley, a heart specialist from Stanford University. He helped us improve various techniques including auscultation and blood pressure checks. There was a big gap between American and Japanese medicine at that time, and everything he provided us proved informative.

Teramoto: Did you find any differences in medical devices?

Tamagaki: I strongly expected that the latest devices in American medicine would be used. On the contrary, American physicians adhered to diagnostic basics. We learned the most basic clinical examination methods, such as performing percussion and auscultation. Not only that, we made funduscopic examinations for eyes, otoscopic examinations for ears, examined the throat… We carried out examinations on the

whole body.

Teramoto: So you mean you learned diagnostics at university in Japan, but those methods weren't always conducted in actual examinations.

Tamagaki: What Dr. Tinsley told us to do was surprising, but I am truly grateful to him for helping us stick to the basics in a strict manner.

Teramoto: We need to understand the situation at that time, that is, that people took a harsh view of ABCC. However, unlike the criticism that ABCC was only interested in research but not in treatment, I learned from the fourth History Forum that inpatient facilities were established at ABCC for treatment of survivors.

Tamagaki: At that time, there were between 40 and 50 patients suffering from leukemia in Hiroshima, but in Japan we did not have any effective drugs to cure the disease. ABCC had access to newly developed medicine via the American base in the city of Iwakuni, and they were distributed to patients residing in Hiroshima every week by Kyoto University graduate Dr. Hoshino, who was studying hematology under Dr. Moloney, a renowned American specialist in hematology at the Department of Medicine. Medicine was distributed free of charge, because it was being transported through the U.S. military. I imagine if we had had to pay for the medicine, it would have easily exceeded ABCC's budget at that time. New medicine dramatically cured patients with chronic leukemia. I am certain that Japanese hospitals at that time were grateful for the fact that the leukemia patients could receive such treatment at ABCC.

There were cases in which study participants were hospitalized on an emergency basis in the ABCC inpatient facilities for acute illness, or we offered treatment for people suffering from chronic diseases, such as heart disease or hypothyroid condition, just like ordinary hospitals. Such stories must be news to many in the audience. A dispute arose regarding whether this American research institution prescribing medicine was in conflict with Japanese law. For this reason, a clinic was established, and I served as the nominal director there.

Teramoto: You have just told us that you treated between 40 and 50 patients with leukemia, but were any patients cured with the new medicine?

Tamagaki: Since leukemia was deemed an incurable disease, the patients weren't fully cured, but remission was achieved. In the case of childhood leukemia, the results could be observed much faster. Some patients recovered after blood transfusions and medication during hospitalization, but they repeatedly experienced recurrence of leukemia after a while. However, among these patients was one who received treatment at ABCC when young, and he was watched with a wait-and-see approach for five to 10 years. As a result, there was not a recurrence of leukemia, even after the patient reached 20 years of age. This was the first example of its kind in Japan. Since then, many patients have been cured, thanks to the great improvement in treatment for leukemia.

Teramoto: Was it reported in the media?

Tamagaki: I think so, but I am not sure if they reported that ABCC had cured the patient.

Teramoto: You worked for ABCC until 1965. A biennial health examination study, which continues to this day, started about eight years before you left ABCC. Also the Life Span Study, which is not a health check-up but research on mortality and cancer incidence among A-bomb survivors, is still being carried out. The participation rate in the health examination study, which you were also involved in as a doctor, is as high as 80 percent, and I find this quite significant. Why do you think the participation rate increased?

Tamagaki: Once I accompanied a contactor to persuade study subjects to participate in the health examinations. At the entrance of the house, they yelled at me, “I have lost some of my family members in the bombing. How dare you examine people like us!” The high participation rate of 70% to 80% was attributed largely to the efforts of contactors who convinced such people to participate in the study, and I am grateful for their work.

Teramoto: I assume dozens of employees were working as contactors in those days. Currently, both Hiroshima and Nagasaki laboratories have a Clinical Contacting Section under the Department of Clinical Studies. They make phone calls to the study subjects and cordially ask them to make a biennial visit to us. I suppose they are not going through the same kinds of hardships experienced in your days, though.

Tamagaki: At ABCC, 5cc’s of blood was collected. In typical Japanese medical examinations at that time, only one or two drops of blood were collected and a doctor would visually count the number of red and white blood cells. This difference triggered the criticism that we collected more blood than usual and performed health examinations without treating patients.

Teramoto: I can imagine your hardship. I would like to have an opportunity to listen to the stories from contactors.

Tamagaki: They carried out instrumental work for advancing ABCC’s research program.

Teramoto: Without knowing what you’ve just mentioned, there seems to have been some criticism that the survivors were assembled under pressure from the Occupation Forces, because ABCC was founded in the period of the U.S. occupation.

Tamagaki: That's absolutely not true. I can clearly deny that.

Teramoto: I assumed so. The Occupation period ended in April 1952 and the health study started in 1958, six years after the end of the occupation period.

By the way, you retired from ABCC in 1965. Were there any reasons for that?

Tamagaki: My father was over 80 and was still working as a practitioner, but he was getting run down. I had no option but to succeed him in his work. Even though ABCC Director Darling at that time urged me to stay, my family circumstances did not allow me to do so.

Teramoto: You were a devoted son to do so. I understand that your father was exposed to

radiation 1.3 kilometers from hypocenter.

Tamagaki: My mother, who happened to be outside at the time of bombing, was exposed to a large amount of radiation. She was weakened and passed away three weeks after the bombing. My younger sister was exposed to radiation near Otemachi Elementary School, located in front of City Hall. Countless shards of glass stuck in half of her body. She lost her hair and had a high fever for many days. Having overcome all of these challenges, however, she got married and was blessed with children and grandchildren. Now, she is living in the countryside of the city of Sendai by herself and doing well. But even now, she says that pieces of glass fall from her body. I am truly impressed by the resilience of people. Of course, I dread radiation exposure, but at the same time, I am impressed by human strength and resilience.

Teramoto: In 2011, Fukushima experienced a nuclear accident. There are still many people who are living away from their hometown or worried about radiation effects. With the purpose of putting research know-how and ABCC/RERF's studies to good use, our researchers have become members of a commission established in Fukushima. In addition, commissioned by the Japanese government, RERF has been conducting a study on nuclear plant emergency workers for a year and a half.

Tamagaki: According to the newspapers, the dose of radiation inside the reactor was said to have reached as high as 3,000 to 5,000 mSv. This is equivalent to the dose at Tenma-cho, the location of my house at the time of bombing. Radiation dose, however, is measured by the hour inside the reactor, and in the case of the atomic bombing, people were exposed to the same amount of radiation in the blink of an eye, which is beyond comparison.

Teramoto: Taking such a difference into consideration, we hope to pursue further research on radiation risk.

Now, let me pass the microphone to those in audience who have questions for Dr. Tamagaki.

Audience member: Could you tell us about your findings on abnormalities in newborns after your three years' of examination experience?

Teramoto: I do not say that we did not detect any abnormalities, but there were no major differences between newborns born to A-bombed parents and those who were not.

Audience member: Apart from congenital malformations, when undertaking house calls, did you encounter any cases in which newborns' development was delayed as a result of their parents' radiation exposure?

Tamagaki: Actually, newborns were not all we examined. It is true that we examined miscarried babies at ABCC after maternity hospitals contacted us. I am not sure if it is appropriate to cite this as an example, but we once dealt with a baby with anencephaly. A hospital could not keep a certain baby with anencephaly who was still breathing, so they asked an ABCC physician to take care of it. The doctor ended up bringing the baby back to the Department of Genetics. I witnessed the baby sobbing. We could not do anything for a living baby. Eventually, the Director

found this out, and the physician, I am sorry to say, was fired for bringing back a living baby.

Audience member: The RERF research, which has been carried out since the establishment of ABCC, is now regarded as a gold standard in the field of radiation risk. As a dedicated researcher involved in the study, do you have anything, any message, you want to pass down to young researchers?

Tamagaki: All I can say is I did everyday work neatly and sincerely; I devoted myself to every single duty of mine. I thought statistics would play the next important role in developing what I had done. I simply passed on the data I had collected through the health examinations, which I performed sincerely, without missing anything, to the Department of Statistics.

Audience member: Thank you very much. You have shared a story of communicating with survivors in a sincere manner. Please tell us how you would like young people to communicate with survivors, or what they should keep in mind when interacting with them.

Tamagaki: The basis of ABCC's research is statistical observation. I believe the statisticians have consistently collected data without preconceptions. For example, one should never ask a person if he/she was exposed to radiation when taking a medical history during a health examination. This is because obtaining information on radiation exposure beforehand influences the performance of an examination. Without taking radiation exposure into consideration, we examined the study participants in the same way as other patients. We thus could reflect our data in the results statistically. ABCC was free from such preconceptions, such as linking symptoms with a history of radiation exposure.

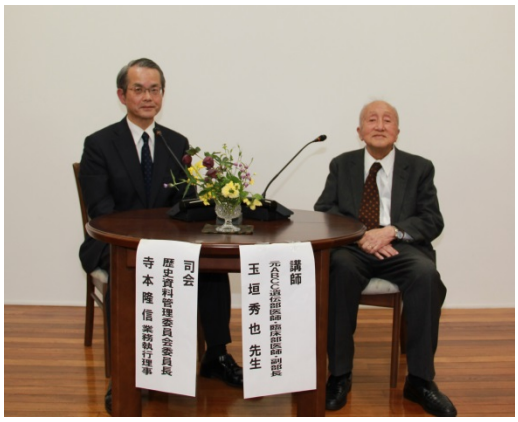
Teramoto: I think that is truly significant. Health examinations shouldn't be biased. Your first answer to the question tells us that as you made examinations, you stuck to the basics of scientific research.

By the way, after retiring from ABCC, you continued treating patients at your clinic in Hiroshima, which you took over from your father. There may even be some in today's audience who were examined by you. Is Tamagaki Clinic still in business?

Tamagaki: Actually, no. It came to an end when I retired.

Teramoto: I would like to express my respect for all your hard work. I believe RERF is one of your homes. Please take good care of yourself and come visit us again. Thank you very much for sharing stories with us today. (Applause from the audience)

Tamagaki: Thank you. I am grateful to have been provided this opportunity.



Mr. Teramoto, left and Dr. Tamagaki


Dr. Tamagaki

icdc-03