Atomic Bomb Rescue and Relief Report
Atomic Bomb Rescue and Relife Report

Report to the president of Nagasaki Medical University regarding activities of the 11th Medical Corps, August to October, 1945

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Dr. Nagai stayed in mourning for six months after his exposure to the atomic bombing, seeking “peace” and “restoration” in prayer.
This publication is an English translation of the report by the late Dr. Takashi Nagai on medical relief activities after the Nagasaki atomic bombing. I celebrate the publication of an English version of this precious scientific medical document, and I am confident that it will also serve as a solemn requiem to the atomic bomb victims.

I hope the following article, which I contributed to The Nagasaki Shimbun, a local newspaper, in August 1999, will help readers understand how Dr. Aloysius F Kuo and faculty and staff members of Nagasaki University School of Medicine feel about the atomic bombing.

In spring of last year, Dr. Aloysius Fang-Tsun Kuo, a native of Taiwan living in Maryland, U.S.A., visited Nagasaki University School of Medicine to find the burial place of his elder brother Fan-Huei Kuo, who had perished in the atomic bombing while a second year student in the Special Medical Department of Nagasaki Medical University.

Dr. Kuo had been seeking information on his brother Fang-Huei Kuo since the end of World War II. He had learned the circumstances of his brother's death through a letter from Mr. Hisataka Amano, a former friend of his brother. Communication with Mr. Fujio Nakamura and Mr. Shiro Fukui revealed that his brother had been buried at the entrance of a rifle range by Associate Professor Fukui, who had been digging an air-raid shelter with him at the time (Testimonies: Voice of Hiroshima and Nagasaki, Vols. 10 and 11, published in 1996 and 1997, respectively). But no one at the Nagasaki University School of Medicine could identify the location of either the rifle range or the shelter. Professor Tadaomi Aikawa who met then Dr. Kuo said "I have never felt more ashamed in my life."

Staff members of Nagasaki University School of Medicine led by Professor Aikawa commenced a search for the former rifle range and shelter in response to the request by Dr. Kuo. They found a copy of the Nagasaki Medical University campus plan dated 1942 on a bookshelf in the Building Maintenance Office and identified the rifle range on it, then compared a current map with the old map to locate the site. Cutting away thick foliage on a sloping area forgotten for decades, they found the rifle range embankment and shelter, and the site was confirmed the testimony of people living in the area since before World War II. Old documents revealed that the Pharmaceutical Department, Nagasaki Medical University commenced the digging of a large air-raid shelter in February 1945, and that the Pharmaceutical and Medical Departments, working in shifts, dug the shelter deeper.

On August 9, 1945, at the 9:00 a.m. roll call about two hours prior to
the atomic bomb detonation, 29 third-year students in the Pharmaceutical Department begun work in three groups engaged in digging the shelter, tidying up the basement drug store room and working in the herb garden, respectively.

The fatal time of 11:02 a.m. arrived. Only the five students with Professor Seiki who were in the innermost part of the shelter and six students in the basement drug store room survived the blast; all the others died. Fang-Huei Kuo apparently died while digging the shelter, but it is unknown if he was the only person from the Special Medical Department digging the shelter at that time. Out of 112 second-year students in the Special Medical Department who were exposed to the atomic bombing, only four who were in the reinforced concrete hospital building survived. At the time of the atomic bombing, the students of Nagasaki Medical University and its Special Medical Department were attending classes in five lecture halls, and approximately 500 teaching staff and students were killed at the Sakamoto campus where all the buildings were made of wood.

Many teaching staff and students of the Pharmaceutical Department, as well as Fang-Huei Kuo, were killed at the rifle range and shelter. Nagasaki University School of Medicine and Pharmaceutical Faculty of Nagasaki University alumni associations joined in erecting a monument there for the consolation of the souls of the atomic bomb victims and as a prayer for lasting peace. Today, on August 9, 1999, an unveiling ceremony will be held at 10:20 a.m. prior to the Memorial Service for the Medical University Atomic Bomb Victims. The monument incorporates a stone column from the former Nagasaki Medical University lecture hall which was broken into two parts in the atomic bombing.

Dr. Kuo and his son Fidelius Robert Kuo, a journalist, translated the "Atomic Bomb Rescue and Relief Report" by Dr. Takashi Nagai, and their manuscript is scheduled to be published by the Nagasaki Association for Hibakushas' Medical Care (NASHIM).

Richard v. Weizsacker, former President of the Federal Republic of Germany, left the following words during a visit to Nagasaki University School of Medicine last April: "A person who forgets the past is prone to repeat what was done in the past, but a person who recalls the past inspires new courage to make a peaceful world." We, the staff of Nagasaki University School of Medicine, are determined to observe this maxim.

The untold efforts of many people are required in the publication of a book. I express my hearty thanks to Professor Yoshisada Shibata of the Department of Radiation Epidemiology and Professor Tadaomi Aikawa of the First Department of Physiology, Nagasaki University School of Medicine for their great efforts.

I hope that this book will be read by people around the world as a
scientific record of the atomic bombing and that, in this way, it will contribute to the repose of the souls of the atomic bomb victims.

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_Nagasaki_
_March 2000_
Foreword

Nagasaki Association for Hibakushas' Medical Care (NASHIM) was established in 1992 with the aim of relief of atomic bomb survivors living abroad and radiation victims who are suffering due to the tragic consequences of radiation-related accidents all over the world. We take advantage of our valuable accumulated experience and scientific data of radiation injury for treatment of Hibakusha (atomic bomb survivors and other radiation victims), and accept medical trainees from abroad, particularly the former Soviet Union. We also invite and give medical examinations and treatment to atomic bomb survivors living abroad. We endeavor to promote international co-operation through Hibakusha medical care from Nagasaki to the world.

One of our activities is a publication project for Hibakusha medical care. We had already published Radiation Q&A in Russian, Nagasaki Symposium Radiation and Human Health : Proposal from Nagasaki in English in 1995, in 1996, The Environmental Radioactivity and the Health Status of Residents and Cattle in Mid-Kazakhstan in Japanese, and in 1998, The Matter of Radioactive Contamination in Taiwan in Japanese. We also produced a video entitled Kazakhstan Now as well. In 1999, the 50th memorial year since the Semipalatinsk Nuclear Test program commenced, we held a remarkable picture panel exhibition for two months at Nagasaki Atomic Bomb Museum. Also, The Nagasaki-Hiroshima Atomic Bomb Exhibition was opened collaboratively for the first time at Semipalatinsk and Almaty of the Republic of Kazakhstan. We contribute to the education of the medical community and general public through enlightened medical care of the Hibakusha both internationally and domestically. Furthermore, we are continuing activities of Hibakusha medical aid commenced at the beginning of the nuclear disaster at Chernobyl, and are still collaborating with the former Soviet Union.

The publication project, this time is about publishing an English version of the priceless medical relief report, in book form, from Dr. Takashi Nagai. He pursued relief action as associate professor of the Radiology Department of Nagasaki Medical University in the chaos just after the atomic bomb explosion. At 11:02 a.m. on August 9, 1945, we suffered catastrophic damage by an atomic bomb which came after the Hiroshima atomic bomb attack. As a result, Nagasaki Medical University and its affiliated hospital located 500 to 800 meters away from the hypocenter were destroyed, and most importantly the staff members, students and nurses, in total 897 persons, inpatients and their helpers, 72 persons, lost their lives. Total casualties were 74,000 persons dead and 75,000 persons injured by the end of 1945. We describe atomic bomb radiation injury as an early onset and severe disorder. As for atomic bomb survivors, many are still suffering delayed onset radiation disorders such
as malignant tumors.

We have therefore decided to publish, as the NASHIM publication project of year 1999, an English version of this significant and vividly recorded medical relief report by Dr. Nagai who was a victim himself and a staff member of the only medical college destroyed by an atomic bomb in the world. Dr. Nagai published many well-known books in the short period remaining in his life and rang the bell of peace immediately after the atomic bomb exploded until he died. He was a shining example and great promoter of the peace movement during the astonishing postwar recovery. We wish more people to read the English version of books relating to the atomic bomb, and to get as many visitors as possible in Nagasaki, to see it, to feel it, in this place of unheard-of calamity caused by the atomic bomb.

In 1995, we established The Takashi Nagai Memorial Nagasaki Peace Award in memory of the 50th anniversary of the atomic bomb attack as an award given every two years to individuals/organizations who have contributed to improve the state of medical care for the Hibakusha. We, furthermore, wish for people to know the real consequences of atomic weapons and learn the preciousness of peace, and we hope this will contribute to unite the international community in peace with prosperity in coexistence towards the 21st century.

Finally, we thank the Nagasaki University School of Medicine for permitting us to publish an English version of the report, Dr. Aloysius F. Kuo for translation, Mr. Fidelius R. Kuo for editing, and Dr. Stephen and Mrs. Yoko Gadd for valuable comments on the manuscript.

Tetsuya Iseki, M.D.
President
Nagasaki Association for Hibakushas' Medical Care

*Nagasaki
March 2000*
Preface

*We were members of a research group with a great interest in nuclear physics...ironically we ourselves had become victims... of the theory we were studying...And yet it was a precious experience for us. Placed on the experimentation table, we could watch the whole process in a most intimate way... Crushed with grief..filled with anger and resentment, we nevertheless felt rising in us a new drive and a new motivation in our search for truth. In this devastated atomic desert, fresh and vigorous scientific life began to flourish.

Takashi Nagai The Bells of Nagasaki

Atomic Bomb Rescue and Relief Report is one of those first seeds of the "vigorous scientific life" that Takashi Nagai wrote of. This report was written as soon as one month after the atomic bomb explosion, from Nagai's sickbed in some instances when he was not expending his remaining strength to tend to atomic bomb patients. Here, Nagai gives an explanation of the physics of the atomic bomb, a description and classification of atomic injuries, and more importantly and true to Nagai's medical spirit, recommendations for prognosis.

Few people come as close to exemplifying the spirit of scientific and medical humanism in the face of atomic warfare as Nagai, Associate Professor of Radiology at the Nagasaki Medical University. From August 9 to October 8, 1945, the 11th Medical Corps, comprised of Nagai and eleven other surviving nurses, medical students, and an associated doctor, worked tirelessly to save the lives of countless patients in and around the Urakami area of Nagasaki.

The Bells of Nagasaki thoroughly describes Nagai's activities as Captain of the 11th Medical Corps and eloquent thoughts on the evils of war. Since its publication in 1949, the work has been translated into many languages and read all over the world. However, unknown to many people, The Bells of Nagasaki was not Nagai's first attempt to put into writing his account of the events of that day or his scientific observations of atomic war injuries. Instead, this report, Atomic Bomb Rescue and Relief Report came first.

Ironically, the president of the medical university, Professor Tsunoo, passed away before he could read the report. Subsequently, perhaps, the neighbor, who was asked to transfer the report, put it away for 25 years. Nagai never even mentioned the work himself, according to Professor Nishimori Kazumasa. Why? We'll never know for sure. What is important is that in 1970 this work was finally added to the international canon of atomic bomb literature. This translation is the first English translation of Atomic Bomb Rescue and Relief Report.

The reader may feel that the report is choppy in its style : a narrative
in one place, a medical description of injuries in another, a physics lesson in another, then a self-critique. However, one must remember that this is an official medical report, a document for no other purpose than to inform the president of the medical university the best course of action to take for the atomic bomb patients it would have to treat in the future, as well as his attempt to explain to other Japanese the physics behind the atomic bomb.

Readers may find that Nagai's early conceptions of the weapon and how it injured people as not entirely correct. However, one must remember the United States produced the atomic bomb in great secrecy and would not divulge many facts for many years. Therefore, Nagai could only use only what information about nuclear physics he and the rest of the scientific community knew or thought to be true.

Nagai spoke of a "secondary atomic explosion," meaning a secondary subcutaneous explosion under the skin caused by the radiation effects of the bomb. He also referred to radiation-induced burns as "pseudo" for lack of another word to describe the phenomena of a wound that seemed to be caused by something other than heat. If Nagai seems tentative in his observations, one must remember that he was treating patients such as the world had never seen before, the first of their kind: the atomic bomb victim.

In his first chapter, he refers to the concept of the atomic bomb as so-zo, which literally means "imagination." Why did he choose this word? At the time, the conception of the atomic bomb really was more in the realm of imagination than in scientific possibility. Nagai and most of the scientific community were not even aware of the existence of plutonium239, a fissible by-product of uranium. The atomic bomb dropped on Hiroshima utilized a uranium fission explosion, but Nagasaki's bomb utilized the more advanced plutonium core.

As narrative alone, Atomic Bomb Rescue and Relief Report is engrossing enough. This report is a first-hand account of the atomic bomb experience through the eyes of a radiologist who attempted to discern the scientific principles behind the atomic explosion, then a doctor who had to rescue and treat its patients, and finally as a righteous man trying to make sense... if not find some kind of redemption from the almost senseless apocalyptic-like destruction of the atomic bomb.

Nagai erred when he said that he himself was responsible for not preparing the university and Nagasaki for an atomic bomb attack. One must remember that before Hiroshima and Nagasaki, no country would have thought the use of atomic weapons was possible. The university was well prepared for a conventional TNT bombing attack, but not the atomic bomb, which absolutely no one could have foreseen.

Nagai was also mistaken when he critiqued himself and the Corps as "a bunch of cowards." In a truly heartbreaking passage, Nagai writes of how at one time he and the Corps members became so overwhelmed with exhaustion and injuries that they could not rise to tend to patients left lying in a field. He begs forgiveness of the reader, but if the reader
understands that Nagai and the team members were debilitated themselves, one understands it is we who should be forgiven if we are critical in any way.

The 11th Medical Corps members were never negligent of their duties. They performed their medical duties under the harshest of survivors' circumstances, an atomic wasteland. They worked when virtually all of them had been injured and should have been convalescing themselves. And they did their operations without the amenities of plentiful supplies, ambulances, and support staff. They had to literally carry many of their patients by hand. Each and every member of the Corps is a true hero already for having done as much with so little to begin with.

Nagai's justification for the bombing of Urakami and the loss of his wife and so many of his friends, students and colleagues was that Nagasaki would be a laboratory for the international community to study the medical effects of atomic weaponry, then come to the sane conclusion, supported by all the medical and scientific evidence, that atomic weapons should never be used again on people.

*Atomic Bomb Rescue and Relief Report* should be perceived as one of civilization's first contributions to that pool of knowledge concerning atomic medical science. It is written with Nagai in the role of physician, researcher, and a humanist who not only witnessed but also suffered the terrible effects of atomic warfare on human beings.

As we move into the new millenium, with more and more nations joining the "nuclear club" each year, let us not forget the lesson Nagai taught us by example, to work for peace.

Fidelius R. Kuo
September 1999
Potomac, Maryland USA

Notes:

*Quote from Nagai Takashi's *The Bells of Nagasaki* is from the following edition: Nagai, Takashi *The Bells of Nagasaki*, translated by William Johnston, Kodansha International: New York, 1984.*

The translator, Aloysius F. Kuo, M.D., is a medical pathologist and served as Chief Pathologist of the Bureau of Laboratories Pathology Department in Washington, D. C., USA. His brother, Fang-Huei Kuo was a 2nd year student at the Nagasaki Medical University. Fang-Huei was among the 896 who perished from the medical school the day of the bombing.

The editor, Fidelius Kuo, is a former reporter for the "Northwest Asian Weekly" and the "Asian Focus."
The cover of the Atomic Bomb Rescue and Relief Report (upper panel), the list of Mitsuyama Relief Team Members (lower panel, right) and the first page of Section 1, Chapter 1 (lower panel, left).
The 11th Medical Corps left Urakami early in the morning on August 12, 1945 walking to Mitsuyama to set up an aid station. They began patient care at four o'clock on that afternoon as the Mitsuyama Relief Team and continued the relief activities for 58 days until the team was dissolved on October 8, 1945 (cf. Section 3, Chapter 3).
Summary

The atomic physics developed from atomic theory demonstrated the possibility of the use of atomic energy for a new source of power. A group of American scientists successfully weaponized and dropped the first atomic bomb on Hiroshima August 6, 1945. On the following August 9, the second bomb was dropped on our heads. The surrounding Nagasaki Urakami area of the university was annihilated and Japan fell as a defeated nation.

Here, I will simply explain the principle of the atomic bomb and the actual conditions of the bombing and the conception of general radiation injuries. Next, I will describe the activities of our rescue and relief team in detail which pushed us into Nishiurakami Mitsuyama-machi. We recorded our experiences and treated patients in this area. Here, we treated 125 atomic bomb patients. There were a total of 2,829 patient treatment days. The duration of the relief operation was 58 days. There were 12 relief team members. Twenty three percent of the patients died.

According to the time illnesses began they can be classified as such: sudden, early, late and delayed onset. Also they will be recorded as such: external injury, pseudo-burn, combined injuries, early onset digestive disorder, early onset blood disorder, late onset blood disorder and indirect disorder.

As for the treatment we tried an auto-blood transfusion method which we found to have a very good effect and which rescued many patients. Also, we applied mineral spring water treatment and got good results. In short, auto-blood transfusion stimulation shortens therapy time by two weeks and the mineral spring water therapy also shortens by two weeks the number of treatment days. Also, the patient-care environment is important. The patient needs a rest in the home.

I also discuss the features of the body injuries of the people at the hypocenter and several observations based on our experience of the atomic bomb.

At last, we review our activities and try to pursue responsibility for defeat. For the conclusion at this chance I sincerely feel that all Japanese should have an understanding of pure science radiation atomic physics and the desire for peaceful uses of atomic energy.