The Imperial Japanese Medical Atrocities and Its Enduring Legacy in Japanese Research Ethics

Abridged from my chapter "The Imperial Japanese Experiments in China" in *The Oxford Textbook of Clinical Research Ethics*, Oxford University Press, forthcoming.

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Part I. BACKGROUND

Shiro ISHII (1892-1959)



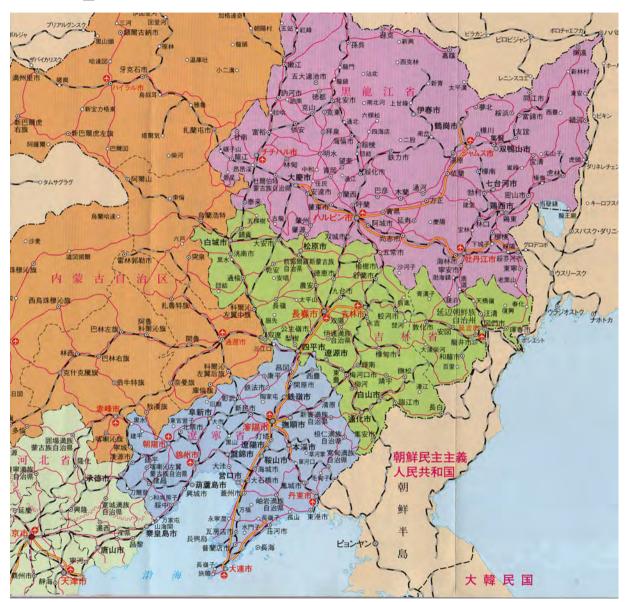
Ishii seemed to want to improve the prestige of medical officers in the Japanese Army by developing a powerful biological weapons program—even though biological and chemical weapons had been prohibited by the Geneva Convention in 1920.

Using the Army's authority and prestige in 1930s Japan, he also envisaged a national network for medical research that would be much more powerful and effective than the existing academic infrastructure.

The Epidemic Prevention Laboratory established in 1932 — The Headquarters was located in Tokyo.



The Map of Northeastern China Today



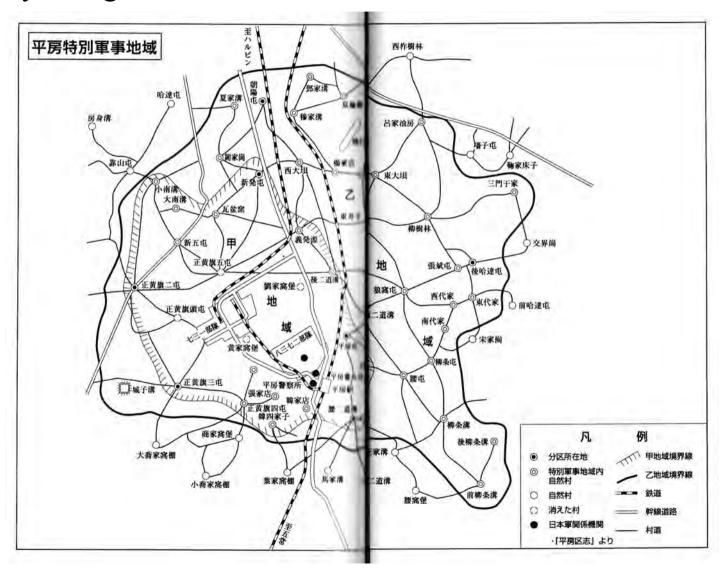
(『地球の歩き方・大連と中国東北地方』ダイヤモンド社、二〇〇二)

Togo Unit in Beiyinhe, a small town in Manchuria about 70 km southeast of Harbin, was Ishii's first prison-laboratory, where deadly human experimentation probably began in the fall of 1933.

The subjects were mainly Chinese but included some Soviets, Mongolians, and Koreans who were arrested by the Kwantung Army Military Police as spies and resisters.

The facilities of Beiyinhe were insufficient for Ishii's project. The buildings were not strong enough to serve as a prison; in September 1934, 16 captives revolted and escaped. So Ishii and the army built a much larger, stronger prison laboratory-factory in Pingfang, about 20 km southeast of downtown Harbin.

Construction at Pingfang began in 1935—Residents of 4 nearby villages were forced to evacuate.



(関成和『七三一部隊がやってきた村』松村他訳、こうち書房、二〇〇〇年

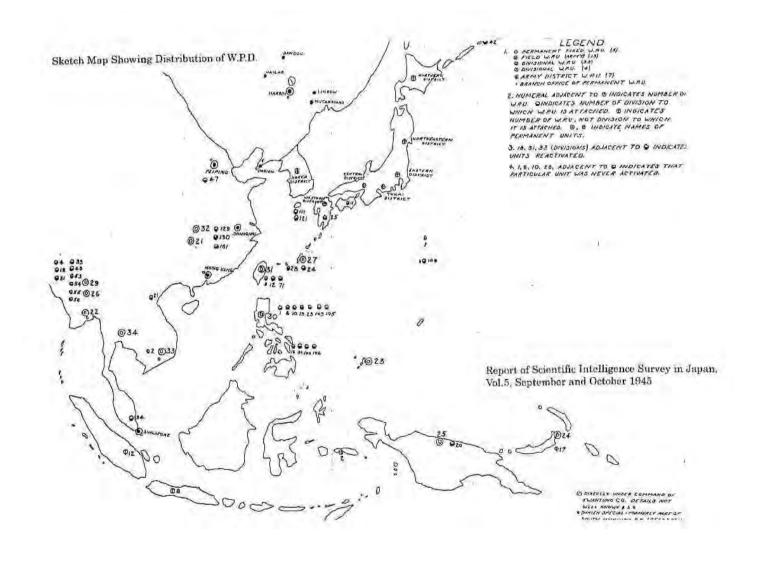
The Togo Unit became an official unit of the Japanese army in 1936, as the Epidemic Prevention Department (Unit 731) of the Kwantung Army. Since Ishii's units were responsible for water purification for Japanese troops in China from 1937 on, they were soon renamed the Epidemic Prevention and Water Supply Departments (EPWSDs).

By 1939, Ishii's network included some field water purification units, 18 divisional EPWSDs, and 5 permanent Epidemic Prevention Departments.

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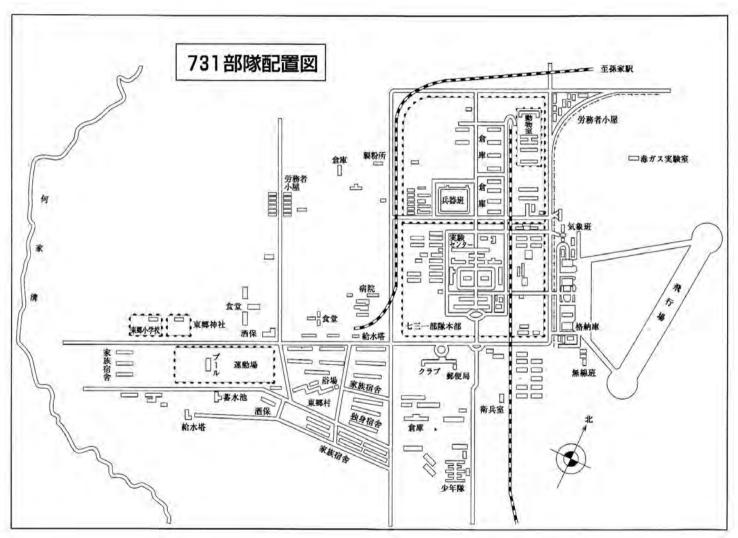
Distribution of Ishii's Units



Ishii had power over army hospitals in occupied cities in China.

His network had also close connections with other biological warfare departments such as the Military Animals Epidemic Prevention Department in Changchun (Unit 100), and institutions for chemical warfare such as the Army 6th Technology Institute, the Army Narashino School, the Army 9th Technology Institute (Noborito Institute), and the Kwantung Army Chemical Department in Qiqihar (Unit 516).

Unit 731 probably moved to Pingfang in 1938.



(関成和『七三一部隊がやってきた村』松村他訳、こうち書房、2000、p.44)

The main building had two special prisons in its inner yard, so that escapees could never get outside.



悪魔の第七三一部隊の全貌

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(森村誠一『新版・続・悪魔の飽食』角川文庫、1983)

The prisons usually held 200 to 300 captives, including some women and children, but that their maximum capacity was said to be 400.

The Military Police sent 400 to 600 captives to Unit 731 every year under the Special Transfer Procedure (Tokui Atsukai), a system the Japanese army developed to supply human subjects.

At least 3,000 people were tortured to death at Unit 731 from 1940 to 1945. [600 by 5 years = 3000] But this number does not include victims before 1940 or at other medical experimentation sites.

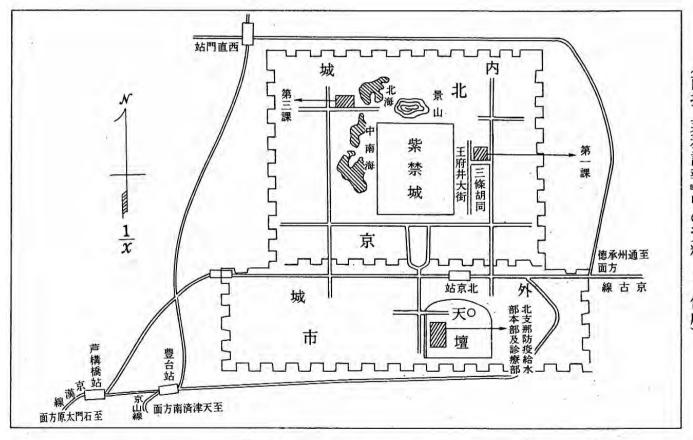
The activities of Unit 731 researchers were only a part of the medical atrocities committed by Imperial Japan.

Deadly experiments also were performed in other permanent EPWSDs such as Units 1644 in Nanjing and 1855 in Beijing.

American, Australian, and New Zealander POWs were forced to participate in experiments by Surgeon Captain Einosuke HIRANO of the 24th Field EPWSD in Rabaul, Papua, New Guinea.

Eight U.S. airmen were killed in surgical experiments in Fukuoka, on the Japanese home islands.

The Location of Unit 1855 in Beijing



(前掲『業務詳報』中の資料より作成)図二 北支那防疫給水部北京本部位置要図

Part II. MEDICAL ATROCITIES

Imperial Japanese medical atrocities can be classified into three categories:

1. Training of Army Surgeons

2. Biological Warfare Maneuvers

3. Research with Humans

1. Training of Army Surgeons

At Datong Army Hospital in Datong, Shanxi, in June probably of 1941, Surgeon Major Kazuharu TANIMURA and Surgeon Lieutenant Rihei MIURA conducted a three-day training program that involved lectures on military surgery and exercise surgeries such as suturing of blood vessels and nerves, thoracotomy, celiotomy, craniotomy, blood transfusion, various anesthetizations, appendectomy, and nephrectomy, performed serially on "six bodies of prepared materials." Judging from confessions about similar cases, the "materials" probably were arrested Chinese resisters who probably were killed in these exercises.

A Surgical Training Program

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(冬季衛生研究班『駐蒙軍冬季衛生研究成績』一九四一、復刻版附録)

2. Biological Warfare Maneuvers

According to testimonies of former junior assistants of Unit 731, when a war between Manchukuo-Japan and Mongol-the Soviets broke in 1939 ("Nomonhan Incident" in Japan or "Halha War" in Mongol and Russia), Unit 731 performed biological warfare against the troops of Mongol-the Soviet.

Moreover, Japanese army officers themselves wrote about biological warfare against China in their official records.

According to these notes, at least three major attacks on Chinese citizens were carried out.

3. Research with Humans

The research by Japanese doctors falls into three categories:

(3-A) Explaining Diseases

(3-B) Development of Therapies

(3-C) Development of Biological and Chemical Weapons

(3-A) Explaining Diseases

Bacteriological Studies

Physiological Studies

In 1944, Shiro KASAHARA, Masaji KITANO, and others published a paper concerning the identification of the pathogen of epidemic hemorrhagic fever. It reads:

We made an emulsion with 203 ground-up North Manchuria mites and salt water, and injected it into the thigh of an ape hypodermically. This first ape became feverish with a temperature of 39.4 degrees Celsius on the 19th day after injection and moderately infected. Then we took blood of this feverish ape and injected it into the second ape, which became feverish and produced protein in its urine. Typical epidemic hemorrhagic kidney was found at its autopsy....Epidemic hemorrhagic kidney was never found at autopsy in the most feverish period....But kidney, liver, and spleen of this period are most infective.

(Kasahara et al. 1944, p.3)

This means they vivisected the "ape," because in order for surgeons to "autopsy in the most feverish period," the subject needed to be alive. Moreover, "the ape" must have been a human being, because the normal temperature of an ape is higher than that of a human being; 39.4 degrees Celsius is normal for an ape. In another paper, Kasahara and his colleagues noted that apes do not become feverish from this disease. So seems probable that they infected humans and vivisected them.

Kasahara himself confessed later that he and his colleagues performed deadly experiments.

Extensive data regarding the dose at which 50% of those exposed would develop various diseases, the socalled minimum infectious dose for 50% (MID50), were described in a U.S. investigator's report. Japanese researchers infected humans to learn the MID50 of anthrax, plague, typhoid, paratyphoid A and B, dysentery, cholera, and glanders. Experiments were performed to determine the MID50 for a variety of pathogens that were introduced into humans subcutaneously, orally, and through respiration of infected air samples.

Some of the infections were not fatal, but many of those exposed died.

After the war, Hisato YOSHIMURA and his colleagues published three papers in Japanese medical journals—in English —reporting part of the frostbite studies that had been performed at Unit 731. They wrote...

STUDIES ON THE REACTIVITY OF SKIN VESSELS TO EXTREME COLD

PART II. FACTORS GOVERING THE INDIVIDUAL DIFFERENCE OF THE REACTIVITY, OR THE RESISTANCE AGAINST FROST-BITE.

HISATO YOSHIMURA AND TOSHIYUKI IIDA*

Institute of Physiology, Kyoto Prefectural Medical College, Kyoto, and Institute of Physiology, Hyogo Prefectual Medical College, Kobe.

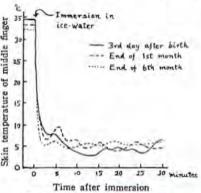


Fig. 2. Temperature reaction to cold observed on a baby.

Table 1. Sexual difference of reaction index estimated on Orochons

	N	fale	Female				
Age (years)	Nos. of subj.	Reaction index	Nos. of subj.	Reaction index			
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Total	16	7.87±0,14	13				

Remark: Values after ± is the probable error of the mean. It is the same in all the following tables.

about 20 Chinese pupils of 7 to 14 years. The results obtained were averaged on groups of every 5 years, and changes of the reaction index with progress of age were observed as is seen in fig. 1. The maximum reactivity was found at the ages of 25 to 29 years, and, as the age became younger or older, the reactivity generally decreased more and more, except that in childhood it was higher than in puberty. Thus the general aspect of change of reactivity with age was similar to that of the other physiological functions.

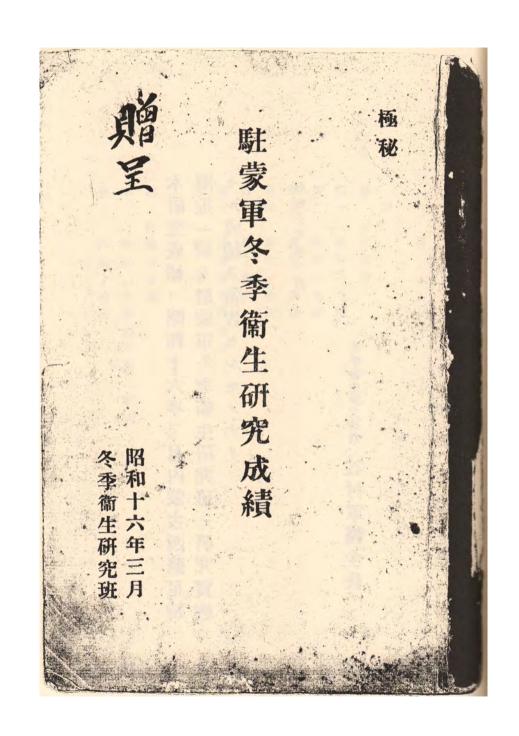
Though detailed studies could not be attained on children below 6 years of age, some observations were carried out on a baby. As is seen in fig. 2, the reaction was detected even on the 3rd day after birth, and it increased rapidly with the lapse of days until at last it was nearly fixed after a month or so.

As to sexual difference of the reactivity, only an outlining aspect was obtained from the observation on Orochon subjects, which are described in table 1. The reactivity of The temperature reaction in ice water was examined on about 100 Chinese coolies from 15 to 74 years old and on about 20 Chinese pupils of 7 to 14 years.... Though detailed studies could not be attained on children below 6 years of age, some observations were carried out on a baby....[T]he reaction was detected even on the 3rd day after birth, and it increased rapidly with the lapse of days until at last it was nearly fixed after a month or so.

As to sexual difference of the reactivity, only an outlining aspect was obtained from the observation on Orochon subjects....The reactivity of the female subject was a little lower than the male's in adult age, while they were nearly the same with each other in childhood.

(Yoshimura & IIda 1951-52, pp.178-179)

The Report of Tanimura's Winter Expedition



Tanimura's Expedition Report Published as Reprint

班長 谷村一治(略歴不祥

者 冬季衛生研究班 (日日は不詳) 本発行日 一九四一年三月 日(日日は不詳)

T所 株式会社 現代書館

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(に表示してあります。 乱丁・落丁本はおどりかえいたします。)担育級

The List of
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(冬季衛生研究班『駐蒙軍冬季衛生研究成績』1941年3月、附表第二其ノ二ノ2,復刻版p.352)

The Confinement of the Subjects



(冬季衛生研究班『駐蒙軍冬季衛生研究成績』一九四一年三月、復刻版四五頁)

The Frostbite Experiment



(冬季衛生研究班『駐蒙軍冬季衛生研究成績』一九四一年三月、復刻版一六七頁)

The Frostbite — 24 Hours Later



凍傷發生(二十四時間後)

(冬季衛生研究班『駐蒙軍冬季衛生研究成績』一九四一年三月、復刻版一六八頁)

The Memorial Service



班長弔詢朗讀(生體慰蠶祭)

年三月、復刻版四七頁)

Tanimura's Condolence at the Memorial Service

(冬季衛生研究班『駐蒙軍冬季衛生研究成績』1941年3月、復刻版p.368)

(3-B) Development of Therapies

Vaccine Experiments

Surgical Innovation

Transfusion Experiments

Yoshio SHINOZUKA (TAMURA), a former junior assistant of Unit 731, writes...



(Photographed by Takashi TSUCHIYA, August 9, 2004)

Unit 731 was developing an envelope vaccine of plague ... Karasawa Division, to which I belonged, also performed human experimentation and vivisection on five Chinese under the pretext of a virulence test of the germ. First we collected blood from them and measured their immunity. On the next day, we injected four kinds of plague vaccines to each of four subjects. No vaccine was given to one subject as control. A week later, vaccines were given again. A month later, we injected 1.0 cc liquid with the same number of plague germs in every subject. All five were infected with plague....The man that had no vaccine was infected first. Two or three days later he became feverish and pale. On the next day he was dying and his face grew darker. He was still alive but the members of the Special Division, which administered the special prison of "Maruta" ["logs"] brought him naked on the stretcher to the dissection room where we awaited him...Lieutenant Hosoda auscultated his heartbeat on his chest. At the moment the auscultation finished, Surgeon Colonel Ohyama ordered "Let's begin!"

(Shinozuka & Takayanagi 2004, pp.78-82)

Shinozuka testifies that even his friend, junior assistant Mitsuo HIRAKAWA, was detained in the special prison and vivisected when infected with plague.

From May to June 1945, Professor Fukujiro ISHIYAMA of the First Department of Surgery, Apprentice Army Surgeon Taku KOMORI, and other Ishiyama's subordinates performed experimental surgeries on 8 U.S. crewmen at Kyushu Imperial University Faculty of Medicine. The American airmen were captured when their B-29s were downed. The Japanese Western District Army decided to execute them and handed them over to Ishiyama. On May 17, 1945, Ishiyama removed a lung from two POWs. On May 22, Ishiyama and his team performed total gastric resection and heart surgery on a POW, and removed the gall bladder and half of the liver of another POW. On May 25, they performed trigeminal rhizotomy (severing the facial nerve roots) on a POW. Finally, on June 2 Ishiyama performed surgery on the mediastinum and removed the gall bladder of two of three POWs. All eight American POWs died during these operations.

After the war, GHQ/SCAP brought this case to the military tribunal in Yokohama. Komori had already died; he had been badly injured in a U.S. air raid on Fukuoka in July 1945. Ishiyama hanged himself in prison in July 1946. On Aug. 28, 1948, the Yokohama tribunal condemned two army officers and three university doctors to death by hanging, and sentenced another officer and two doctors to life imprisonment. Five other officers, eight doctors, and a head nurse were ordered to hard labor. However, their sentences were reduced in 1950 when the Korean War broke out and none among the convicted was executed.

Surgeon Major Kazuharu
TANIMURA and his colleagues
experimented with field surgery
during their expedition to Inner
Mongolia.

They performed...

Intestinal Bypass Surgery in the Tent



天幕內開腹猶(陽吻合術)其(三

(冬季衛生研究班『駐蒙軍冬季衛生研究成績』一九四一年三月、復刻版二二五頁)

Amputation in the Tent



天幕内(切斷術)其ノ二

(冬季衛生研究班『駐蒙軍冬季衛生研究成績』一九四一年三月、復刻版二二六頁)

Tanimura's detachment performed various transfusion experiments, also to develop battlefield treatments.

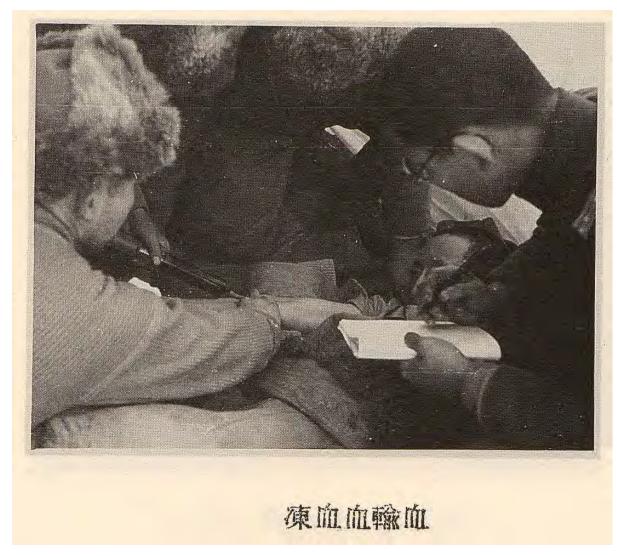
They recorded...

Transfusion of Blood Kept in Thermos Bottle



(冬季衛生研究班『駐蒙軍冬季衛生研究成績』一九四一年三月、復刻版二二七頁)

Transfusion of Frozen and Thawed Blood



(冬季衛生研究班『駐蒙軍冬季衛生研究成績』一九四一年三月、復刻版二二六頁)

At Kyushu Imperial University Faculty of Medicine, sterilized and diluted brine was transfused into U.S. airmen as a blood substitute in the experimental operations described above. On May 17, 1945, Professor Ishiyama and his aides transfused 2,000 cc of blood substitute into the POW whose lung was removed. On June 2, they drew about 500 cc of blood from the right thigh artery of another POW and transfused 300 cc of blood substitute.

(3-C) Development of Biological and Chemical Weapons

Biological Weapon Experiments

Chemical Weapon Experiments

U.S. investigator N.H. Fell described anthrax bomb tests:

In most cases the human subjects were tied to stakes and protected with helmets and body armor. The bombs of various types were exploded either statically, or with time fuses after being dropped from aircraft.... in one trial with 15 subjects, 8 were killed as a result of wounds from the bombs, and 4 were infected by bomb fragments (3 of these 4 subjects died). In another trial with a more efficient bomb ("Uji"), 6 of 10 subjects developed a definite bacteremia, and 4 of these were considered to have been infected by the respiratory route; all four of these latter subjects died. However, these four subjects were only 25 meters from the nearest of the 9 bombs that were exploded in a volley.

(Fell 1947)

An unknown researcher in Unit 731 describes a large human experiment of yperite gas (mustard gas) on Sept. 7-10, 1940. 20 subjects were divided into three groups and placed in combat emplacements, trenches, gazebos, and observatories. One group was clothed with Chinese underwear, no hat, and no mask, and was subjected to as much as 1,800 field gun rounds of yperite gas over 25 minutes. Another group was clothed in summer military uniform and shoes; three had masks and another three had no mask. They also were exposed to as much as 1,800 rounds of yperite gas. A third group was clothed in summer military uniform, three with masks and two without masks, and were exposed to as much as 4,800 rounds. Then their general symptoms and damage to skin, eye, respiratory organs, and digestive organs were observed at 4 hours, 24 hours, 2, 3, and 5 days after the shots. Injecting the blister fluid from one subject into another subject and analyses of blood and soil were also performed. Five subjects were forced to drink a solution of yperite and lewisite gas in water, with or without decontamination.

Poison experiments were also performed at other EPWSDs.

Engineer Major Shigeo BAN of the Army 9th Technology Institute (Noborito Institute) confessed to performing poison experiments at Unit 1644 in Nanjing.

Early in May 1941, the Army General Staff Corps ordered Ban and his eight colleagues to visit Unit 1644 to test the toxicity of a newly developed poison, acetone cyanhydrin, in humans.

Part III. COVER-UP

Ishii's medical network suddenly collapsed in August 1945 when the Soviet Union declared war on Japan and advanced into Manchuria. The Japanese Army immediately decided to withdraw all human experimentation units from China and to destroy evidence of medical atrocities. At Unit 731, all the surviving captives were killed, cremated, and cast into the Songhuajiang River. The main building with its special prisons was totally destroyed by artillery. Its surgeon officers, researchers, workers, and soldiers were hurriedly evacuated in specially chartered trains and ships.

Although the United States occupied Japan after Japan's surrender on August 15, 1945, General Headquarters/Supreme Command for the Allied Powers (GHQ/SCAP) did not investigate medical crimes.

Instead, investigators from the U.S. Army Chemical Corps in Camp Detrick, Md., which oversaw U.S. chemical and biological warfare efforts, sought the biological warfare data that Ishii and his colleagues had accumulated—so that the United States could catch up with the Soviet Union and other countries in biowar research and development.

In return for the Japanese data, Lieutenant Colonel Murray Sanders, the first Chemical Corps investigator, asked General Douglas MacArthur and General Charles Willoughby, a close MacArthur aide, to promise Ishii and his researchers immunity from war crimes charges in September 1945.

Ishii and his colleagues gave up some data, but they concealed that the data were from experiments with humans.

免責の系譜』日本評論社、 「北野中将へ連絡事項」(本書第4章、資料編⑥参照) Early in January 1947, the Soviet Union sought the extradition of Ishii and his researchers for investigation of their experiments, which the Soviets had learned about from captured officers and soldiers of Ishii's network. The Soviets also wanted the biowar data and threatened to reveal the Japanese medical atrocities at the International Military Tribunal for the Far East (the Tokyo Tribunal), if the United States did not share the information. U.S. officials dismissed this threat—the United States controlled the Tokyo Tribunal—but then began to investigate the Japanese researchers more closely.

At this point, U.S. officials recognized that human experiments had occurred, and the immunity that they had granted to Ishii and others now became a problem. In Nuremberg, the United States was prosecuting Nazi doctors for their human experiments. MacArthur's headquarters discussed the dilemma repeatedly with officials in Washington, and finally...

An interagency task force in the U.S. capital concluded:

Information of Japanese BW [biological warfare] experiments will be of great value to the U.S. research program....The value to the U.S. of Japanese BW data is of such importance to national security as to far outweigh the value accruing from "war crimes" prosecution....The BW information obtained from Japanese sources should be retained in Intelligence channels and should not be employed as "war crimes" evidence. (State-War-Navy Coordinating Subcommittee for the Far East 1947)

The Conclusion of the Last Report of U.S. Investigation said...

Office	rity of Chief Chemical		
Grade an	d ors Let Cil Cone C Disease 4 aug 54	Adequate Material	<u>Total</u>
	Dysentery	12 20	21 22
	Glanders Meningococcus	1	5
	Mustard Gas	16	16
	Plague	42	160
	Plague Epidemic	64	66
	Poisoning	August 1980	2
	Salmonella	<u>11</u>	14
•	Songo Small Pox	52 2	101
	Streptococcus	1	3
	Suicide	11	30 32
	Tetamis	14,	32
	Tick Encephalitis	.	2.
	Tsutsugermehi	and New York and the second	2
	Tuberculosis	41	82
100	Typhoid	22	63
	Typhus	9	26
	Vaccination	2	2

- C. Specific protocols were obtained from individual investigators. Their descriptions of experiments are detailed in separate reports. These protocols readily account for the tabulated pathological material and indicate the extent of experimentation with infectious diseases in human and plant species.
- 5. Evidence gathered in this investigation has greatly supplemented and amplified previous aspects of this field. It represents data which have been obtained by Japanese scientists at the expenditure of many millions of dollars and years of work. Information has accrued with respect to human succeptibility to these diseases as indicated by specific infectious doses of bacteria. Such information could not be obtained in our own laboratories because of scruples attached to human experimentation. These data were secured with a total outlay of %250,000 to date, a mere pittance by comparison with the actual cost of the studies.

Purthermore, the pathological material which has been collected constitutes the only material evidence of the nature of these experiments. It is hoped that individuals who voluntarily contributed this information will be spared embarrassment because of it and that every effort will be taken to prevent this information from falling into other hands.

Incls: Tab A-AJ
Tab A w/d

EDWIN V. HILL, M. D. Chief, Basic Sciences Camp Detrick, Md.

M-670



Evidence gathered in this investigation has greatly supplemented and amplified previous aspects of this field. It represents data which have been obtained by Japanese scientists at the expenditure of many millions of dollars and years of work. Information has accrued with respect to human susceptibility to these diseases as indicated by specific infectious doses of bacteria. Such information could not be obtained in our own laboratories because of scruples attached to human experimentation. These data were secured with a total outlay of \(\frac{\pma}{2}\)50,000 to date, a mere pittance by comparison with the actual cost of the studies. (Hill 1947)

The Soviet Union brought 12 captured officers and soldiers to trial before an open military tribunal at Khavarovsk in December 1949, commonly called the Khavarovsk Trial.

Six of the accused were from Unit 731 and two from Unit 100.

They were all sentenced to confinement in a labor correction camp for sentences that ranged from two to 25 years, but they returned to Japan by 1956 when the Soviet Union and Japan resumed diplomatic relations.

As a matter of fact, the United States succeeded in branding the trial as communist propaganda.

The People's Republic of China also tried Japanese war criminals before military tribunals in 1956, but only one surgeon officer of Ishii's network was included.

None of these defendants received a death sentence, and all returned to Japan by 1964.

Part IV. ENDURING LEGACY

In cooperation with the United States, Japan hid the medical atrocities from both the international and domestic public for decades. Testimony from the Khabarovsk trial was regarded as false communist propaganda. Former soldiers and junior assistants who bravely confessed to conducting such experiments in China were considered to have been brainwashed and neglected.

But in 1981, popular writer Seiichi MORIMURA published a bestselling book about Unit 731 that included testimony by many of its anonymous soldiers. In the same year, historian Keiichi TSUNEISHI published his first extensive study of Unit 731.

Because of this, in Japan the word "Unit 731 (731 Butai)" became widely known with dire impression, and historical studies have advanced greatly since then as significant documents have been found in Japan, the United States, China, and the former Soviet Union.

Outside Japan, the Imperial Japanese medical atrocities did not become widely known until 1990s.

Today U.S. government can no longer be closing its eyes to the record of human experimentation, and has refused to allow former employees of Unit 731 into the country on the ground that they are war criminals. But...

U.S. government's attitude is superficial and hypocritical.

Until 1980's it had allowed Ishii's researchers to enter freely.

Now the United States denies entry of Shinozuka, the most courageous person who continues to publish his experience at Unit 731 and had been invited to confess his crimes in public symposia.

The Japanese government is still keeping silent on this issue. It acknowledged in the Diet in 1982 that Unit 731 surely existed, but has never explained what was done there. The government and conservative nationalists in Japan are still hiding the historical truth. Moreover, it seems they wish the truth would be forgotten. One of the most enduring legacies of these experiments is therefore the silence that continues to surround them.

Within the Japanese medical profession, the subject of "Jintai Jikken" (human experimentation) became taboo after the end of World War II. Many of the researchers who performed these experiments became prominent figures in academia. If junior researchers speak of human experimentation, they might touch on their head professors' "secret of secrets" and wreck their own academic careers. Therefore, not only Ishii's researchers themselves but also their disciples have hardly mentioned this issue publicly.

Most of the public has thought it unnecessary to discuss human experimentation seriously. Even today most people find it hard to believe that medical doctors, who devote themselves to saving lives, really treated human beings like guinea pigs.

Those who found historical documents to be credible and who appealed for public inquiry were often sneered at.

This failure to examine history publicly permits most Japanese citizens to regard human experimentation as a barbarism performed only by mad doctors.

As a matter of fact, many cases of abuse of humans in research have been reported in newspapers, journals, and TV in postwar Japan.

However, these were presumed to be exceptional deviations.

The failure to confront reality means that Japanese medical ethics lack a framework for critically discussing and evaluating human experimentation. There has been little discussion, publication, or teaching about protection of humans in research. Even in postwar cases of abuse, journalists and ethicists have focused discussion on a case-by-case basis and failed to derive general principles. Consequently, politicians have never proposed a blanket law to govern medical research, and the government has never articulated a general policy for the protection of humans in research.

Looking into and evaluating one's own past is one of the prime imperatives of ethics.

Japan must admit its past deeds, inquire into the truth, apologize to and compensate the victims for their suffering.

This will surely lead to the establishment of true clinical research ethics in Japan.