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Project Operation Whitecoat: 
Military Experimentation, Seventh-Day Adventism and Conscientious Cooperation

BY ALICIA GUTIERREZ

ABSTRACT: From 1954-1973, the U.S. Army established an unlikely alliance with the Seventh-Day Adventist (SDA) Church and their unequivocal support for a series of biomedical experiments called Project Operation Whitecoat (POW). In a letter dated October 19, 1954, Dr. T. R. Flaiz, Secretary of the Medical Department of the General Conference of SDAs wrote to then-Surgeon General Major George E. Armstrong, “the medical research project which you have under way... offers an excellent opportunity for these young men to render a service which will be of value not only to military medicine but to public health generally.”1 While the notion of church, military and government cooperation, especially in regards to human experimentation may seem incongruous, unorthodox and paradoxical, the nature of the relationship that the church was able to maintain with the military hierarchy allowed for a series of biological experiments that can be considered a model of ethical human experimentation.

According to testimony by the United States General Accounting Office to the Legislation and National Security Subcommittee, Committee on Government Operations in the House of Representatives, a shroud of secrecy surrounds government sponsored experiments conducted on humans between 1940 and 1974.2 Since the Nuremberg trials, which condemned the acts of Nazi doctors, US agencies adopted the Nuremberg Code. The Nuremberg Code requires that researchers obtain informed consent

before conducting any research involving human subjects. Researchers are also required to allow their human subjects the freedom to discontinue participation in any study in which they are involved as human subjects. Despite these codes designed to protect the rights of human subjects in research, in terms of government and/or military medical experimentation after World War II, no overarching or overseeing agency existed to ensure that these experiments were being executed in accordance with federal laws or policies, such as the Nuremberg Codes.³ Between 1954 and 1973, a series of ethical experimentation was conducted in the United States that stood in sharp contrast to regulations that might have better protected the humans involved in the research.

Project Operation Whitecoat (POW), as it was called, was a code name for an alliance between the US Army and the Seventh-Day Adventist (SDA) Church to provide an alternative means by which Seventh-Day Adventists could serve their county militarily. This alternative means of service meant that Seventh-Day Adventists would become the subjects of military medical research. In a letter dated October 19, 1954, Dr. T. R. Flaiz, Secretary of the Medical Department of the General Conference of SDAs wrote to then-Surgeon General Major George E. Armstrong, “the medical research project which you have under way… offers an excellent opportunity for these young men to render a service which will be of value not only to military medicine but to public health generally.”⁴ Attached to this letter was a preliminary statement by the General Conference regarding the use of volunteers for medical research. It stated, “it is the attitude of Seventh-Day Adventists that any service rendered voluntarily by whomsoever in the useful necessary research into the cause and treatment of disabling disease is a legitimate and laudable contribution to the success of our nation and to the health and comfort of our fellow man.”⁵ POW gave Seventh-Day Adventists a way to serve the country in a meaningful way that did not involve fighting in a war directly.

³ United States General Accounting Office, Human Experimentation, 1.
⁴ Flaiz, 10.
⁵ Statement of Attitude Regarding Volunteering For Medical Research (The General Conference of Seventh-Day Adventists, October 19, 1954).
Surprisingly little, if any, research has been done on POW. Because of the direct involvement of the SDA church and the strict supervision of the Army surgeon general, POW was able to distinguish itself away from the shroud of secrecy surrounding other military experiments and serve as a model for conscious, ethical human experimentation in an era when deception ran rampant.

*The Seventh-Day Adventist Church in America: A Brief Military History*

Throughout its history, the SDA church has been actively engaged and concerned with the involvement of its members in the military. In order to better grasp the role that the SDA church was able to play in POW, it is important to look at its history through the lens of military relations. The SDA church emerged from the Christian Connection and later, the Millerite Movement. The Christian Connection was “a religious body that in the mid-nineteenth century was fifth in membership within the United States.”

One of the founding beliefs in this movement was literal interpretation, and sole authority, of the Bible. This included observance of the seventh-day (Saturday) as the Sabbath and the belief in the “literal soon advent of Christ.”

Baptist preacher William Miller was renowned for the knowledge that he displayed when interpreting the Bible. He believed that Christ’s second coming was fast approaching which prompted believers and scores of churches to adopt the name ‘Adventist’ for themselves by the 1830s and 1840s. Some Adventists followed Miller’s belief that based on his calculations the Second Advent would occur in 1844. There were others, however, who believed that Christ’s advent could not be determined, and was yet to arrive, causing a theological schism. In 1844, a small wood structure in Washington, New Hampshire became the first ‘Adventist’ church, and on May 21, 1863, “the

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7 “History of the Seventh Day Adventist Church.”
8 “History of the Seventh Day Adventist Church.”
The early SDA church placed an important emphasis on freedom. As the church itself points out, because of this, SDAs “worked toward abolition of slavery as well as roles for women in the church… Freedom was also emphasized through an orientation toward temperance and health reform… Thus within nineteenth-century Adventism one finds strong anti-slavery actions, women licensed as ministers, and health reform principles that included abolition of alcohol and tobacco.” This movement towards freedom, especially anti-slavery sentiment, caused SDAs to side with the North during the Civil War. According to a statement released by renowned Adventist prophetess Ellen G. White in 1863, “God gives him [the slaveholder] no title to human souls, and he has no right to hold them as his property... God has made man a free moral agent, whether white or black. The institution of slavery does away with this and permits man to exercise over his fellow man a power, which God has never granted him.” Yet, literal interpretation of the Bible, including the Sixth Commandment that forbids killing, put them at odds with the military. Because of the Civil War, the SDA church was forced to deal with this ideological dilemma just as the church was being formed. In 1863, the Union implemented conscription and the SDA church took an official stance against military service. This clearly resonates from White’s prophecy:

God’s people… cannot engage in this perplexing war, for it is opposed to every principle of their faith. In the army they cannot obey the truth and at the same time obey the requirements of their officers… Those who love God’s commandments will conform to every good law of the land. But if the requirements of the rulers are such as conflict

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9 “History of the Seventh Day Adventist Church.”
10 “History of the Seventh Day Adventist Church.”
with the laws of God, the only question to be settled is:
Shall we obey God, or man?13

The SDA position on war made them a minority, which resulted in some disdain and contempt, yet they were not faced with legal penalization. When a member of the SDA church was drafted, the congregation utilized a provision allowing them to pay their way out of military service. Thus, drafted men were able to avoid military service by paying a $300 commutation fee. When a poor member of the congregation was drafted, the church worked together to raise money, thereby cementing a legacy of the SDA church involving itself in individual members’ military affairs. In 1864, the military created a stipulation allowing people or religious organizations to file for noncombatant status; however, the Adventist church did not immediately seek to gain recognition under it because they felt secure, confident and protected by the general accessibility of the commutations fee. When the commutation fee became subject to restricted use in July of 1864, the SDA church sought to gain recognition as noncombatants and ultimately received it from the state and federal levels of government.

Along with the end of the Civil War went any further discussion of SDA military service. Although SDAs admonished the Spanish-American War of 1898 and encouraged pacifism, the lack of conscription did not necessitate any further action. But when World War I erupted and conscription once again became an issue that members had to face directly, the SDA church developed a new viewpoint on what it meant to be a noncombatant.

When the draft was implemented for World War I, the SDA church took a major step in their stance on military service. Avoiding the myth that church doctrine was fait accompli, the SDA church changed their definition of noncombatant service. According to sociologist Ronald Lawson, “instead of being pacifists who refused to be involved in war, Adventists would now respond to the draft but refrain from bearing arms. As unarmed soldiers, they would not kill but do good.”14

13 White, 361-362.
Project Operation Whitecoat

not come without debate. A week after the U.S. declared war, Adventist leaders met and petitioned that Adventists “be required to serve our country only in such capacity as will not violate our conscientious obedience to the law of God.”\textsuperscript{15} Dr. Lawson believes that this change was an attempt by the church to move away from ‘sect’ towards ‘denomination.’ According to Lawson, who utilizes Rodney Stark and William Sims Bainbridge’s church-sect theory:

A highly sectarian group has high tension with society, a mainline denomination low tension, with a continuum between the two representing varying degrees of tension. As a group moves from sect towards denomination, this is indicated by relaxation in tension… When a religious group concludes that military service contravenes its principles and rejects the call to arms, that decision marks it as different. Depending on the political context, it may elicit antagonistic responses—scorn and harassment from the public and punishment by the state. This indicates that the group’s tension with society is high—that it is towards the sect end of the church-sect scale. Since many sects, over time, reduce their tension with society and move towards the church end of the scale, a sect holding a deviant position on conscription is likely to modify its stand in order to reduce tension.\textsuperscript{16}

In other words, religious denomination and sect sit at opposite ends of a sliding scale. ‘Sect’ or ‘denomination’ is determined by a group’s tension with society. If a group’s religious doctrines or practices place them in a position where they are at odds with mainline society, they are considered a sect. Consequently, the more a religious group’s doctrines and practices fit within mainline society, the more they are considered a denomination. If a group


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does not want to retain the stigma associated with being considered a ‘sect,’ then the best way to do this would be to reduce the “tension” with society by adjusting their beliefs and practices to fit mainline society.

The shift from non-militarized pacifists, who paid commutation fees to avoid the draft, to militarized noncombatants, who allowed themselves to be drafted, yet, classified differently not to bear arms, did not seem to challenge SDA and biblical doctrine. SDAs did not see a problem with aiding the sick. They believed that whatever a wounded soldier decided to do after being rehabilitated was not their responsibility. They were proud, patriotic and willing to offer any assistance to their country so long as it was harmonious with their religious conviction. Further, this would create a legacy that combined patriotism with pacifism in a way that was religiously based.17

Based on biblical principles, SDAs long believed that it was important to give to God what is God’s and give to Caesar what is Caesar’s.18 In other words, while SDAs believed that their primary duty was to serve God, this adherence to God’s law and the bible should not get in the way of their duties and responsibilities here on earth (granted they do not conflict with biblical principles). SDAs believed that it was imperative to follow civil authority because it maintained order. Further, by being good citizens and not stirring up agitation or confrontation, SDAs would not be harassed for avoiding their duty to the country in a time of war, and might even be regarded highly for doing their service.19 Good citizenship would allow the SDA to remain in good favor with the government and allow the individual to continue to enjoy the comfort and protection the government provides him (or her).

In order to prepare SDA men for noncombatant service, the North American Division of the SDA church established training schools at its colleges and academies in conjunction with the Red Cross. This allowed young men who were predisposed to the draft

18 Based upon Matthew 22:21, in which several disciples asked Jesus if it was right to pay taxes to Caesar to which he replied that Caesar should be given what is his.
to acquire basic medical training so that they would be attractive candidates for noncombatant medical units within the military. This also worked well with the church because providing medical aid would not conflict with allowable activity for the Sabbath.  

With the implementation of the draft, the SDA church took steps to resolve potential conflicts between the service that their noncombatant members would be asked to perform and other core religious beliefs. The SDA church created the National Service Organization (NSO), an organization that deals with conflicts that arise in the armed forces between noncombatancy and Sabbath observance. The creation of the NSO made it outwardly clear that the SDA church would be readily available and vigilant in the handling of its members within the armed forces.

In the wake of rising tensions in Europe prior to the start of the second World War, the General Conference of SDAs released a pamphlet in 1934 that, “urged youth to prepare for noncombatant service by graduating in medicine, nursing, dietetics, or some other medically related field, or to at least get experience as cooks, nurses’ aides, etc.” The SDA church also implemented another program, similar to their Red Cross training in WWI, but it was revised and refined into a collaborative effort with the military and army leaders who were used to supervise the program. Once the war began, the program expanded among the SDA educational and religious system. However, some SDAs disfavored the involvement and relations between the government and SDA church and accused it of being a “part of the national war machine.” Referred to as ‘reformers,’ the SDA Reform Movement began to diverge from mainline SDAs after WWI. The movement began in Europe and expanded to the United States. SDA Reformers believed that when the General Conference adjusted their position of noncombatancy in the beginning of the First World War, “the leadership… overthrew the commandments of God… Hence, they have the right to exist as a separate

21 Lawson, "Onward Christian Soldiers?," 198  
23 Lawson, “Church and State,” 290  
24 Lawson, "Church and State," 291.
movement… Reform Adventists believe that no true believer could ever join the military, even in medical work.”

For the most part, however, SDA reformers were the minority, and mainline SDAs supported noncombatant roles in military service.

With the passage of the Selective Service Act in September 1940, the SDA once again had to clarify its stand on SDA military service versus other classifications such as conscientious objectors or noncombatant military service:

Those refusing to bear arms were classified as ‘conscientious objectors’… During World War II, American Adventists enthusiastically embraced the national consensus about the rightness of defending freedom against aggression of ultra-nationalist dictatorships. Noncombatant military service… offered a way to prove their patriotism. Moreover, their distinguished service demonstrated that noncombatancy was not cowardice. Desmond T. Doss, with his bravery in winning the Congressional Medal of Honor in 1945—the first ever awarded to a noncombatant—provided compelling evidence for that point.

However, there was still lingering uncertainty as to whether or not SDAs should bear arms. In *Atlantic Union Gleaner*, an SDA newsletter for the Atlantic region, dated December 24, 1941, two weeks after the attack at Pearl Harbor, an article entitled “Should Our Men Drill with Rifles?” relayed this fear. This article stated that “considerable… agitation has been stirred up among our people regarding the question as to whether our young men in army camps should consent to drill with rifles when pressure from army officers is brought upon them…”

In order to alleviate some of the tension felt by men in the military, or planning to enter the

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military, Atlantic Union Gleaner provided, in text, the Definition of Noncombatant Training and Service as signed in Executive Order on December 6, 1940. It also stated that the SDA headquarters was “taking steps… to relieve this pressure at these… camps by bringing to the attention of their post commanders the official documents which have a bearing upon this particular matter.”28 The article also listed the various different task groups and assignments that were suitable for 1-A-O29 level COs.

Because of their dedication to serving both God and country, many SDAs in military service refused the label of ‘conscientious objectors,’ and preferred, instead, the label of conscientious cooperators. With this more cooperative position, SDAs were more welcomed and received by the military hierarchy than other religious groups.30 According to Lawson, “some 12,000 American Adventists served during World War II as noncombatants in medical branches of the services, where they could observe the Sabbath conscientiously, with official government recognition.”31

When the Korean and Vietnam Wars commenced, the SDA church revived their Medical Cadet Training Program as they previously had operating during WWII. In Atlantic Union Gleaner, an article on July 17, 1951 explains training at Camp Desmond T. Doss. At the close of their training, one man stated “‘I do not fear to enter the army service…I want to be faithful in my service to my God and my country.’”32 In addition to the revamped training, the Korean War also saw the first appointments of SDAs into positions of military chaplaincy. This was clearly another step with SDA/military relations. This is where the POW story begins.

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28 Haynes, 3.
29 A status of 1-A-O signifies that the individual will participate in military activity and will cooperate with military sanctions, but will only assume a noncombatant role.
30 Lawson, "Church and State" 291.
31 Lawson, "Church and State" 291.
Human Medical Experimentation: An Overview

Human experimentation has been in existence since the early development of science, and it is beyond the scope of the paper to deal with its extensive history. Nonetheless, it is useful to have a brief understanding of the history of medical experimentation in order to understand why POW was so different. The Ancient Greeks and Romans engaged in occasional vivisection for exploratory knowledge in medicine. Many experiments in early civilizations were done on condemned criminals because their suffering and death was seen as restitution for their crimes and as a token for the greater good of society. In the Middle Ages, animals, cadavers, and the occasional living human were used to learn about the human body.33

During the Renaissance, an example of experimentation on humans can be found in Fallopian, a physician who acquired permission to perform experiments on criminals from the duke of Tuscany. Throughout the Scientific Revolution, Paracelsus, Andreas Vesalius and Willem Harvey began applying data gleaned from the dissections of animals onto the study of humans. This resulted in applications of the scientific method, and more dangerous experiments being performed on humans.34

During the 19th and 20th centuries, human experimentation increased along with newfound medical theories. Most of the time:

Research was done with treatments or cures in mind; in others, treatments were denied or studies ignored either because the disease in question was limited to black populations or poor immigrant groups, or so that researchers could follow the progression of an untreated disease from beginning to fatal end. The purpose in both instances was simply to add to the body of knowledge, regardless

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33 Andrew Goliszek, In the Name of Science: A History of Secret Programs, Medical Research, and Human Experimentation (New York: St. Martin's Press, 2003), xii.
34 Adil E. Shamoo and David B. Resnik, Responsible Conduct of Research (Oxford: Oxford University Press, 2003), 182.
of the consequences, or to answer questions addressed by basic research.\textsuperscript{35}

Because of this goal-oriented research, many basic human rights were violated. For example, Adil Shamoo and David Resnik relate how:

In 1895, Henry Heiman, a New York pediatrician, infected two mentally retarded boys, 4 and 16 years old, with gonorrhea. In 1897, the Italian researcher Giuseppe Sanerilii injected yellow fever bacteria into five subjects without their consent in order to test its virulence… [and] the discoverer of the bacillus strain that causes leprosy, Amauer Hansen, carried out an appalling experiment on an unwitting 33-year-old woman when he twice pricked her eye with a needle contaminated by nodules of a leprous patient.\textsuperscript{36}

Germ theory made experiments of the latter kind more common. In 1892, Albert Neisser, a professor of dermatology at the University of Breslau, wanted to study the possibility of vaccinating healthy children from the syphilis virus. To do so, he took samples from syphilitics and inoculated three teenage prostitutes and four healthy children without acquiring consent from them, their parents or guardians.\textsuperscript{37}

The notion of consent in early medical experimentation was novel and/or occasional at best. Because of social constructions, racial theories and social Darwinism, certain people were not seen as being as valuable as others, thereby resulting in scientists performing some experiments without informed consent. This meant that the people most often at risk were those belonging to “vulnerable populations: children, mentally ill people, poor people,

\textsuperscript{35} Goliszek, xiii.
\textsuperscript{36} Shamoo and Resnik, 183, 185.
Vulnerable populations are people whose capacity to provide consent is inhibited or questionable. Also considered vulnerable populations are: embryos, fetuses, and people who are coerced or pressured into participating. Early to early-modern scientists and physicians were in a situation where human ethical concerns were either nonexistent, or juxtaposed to their desire and commitment to critical advances in medicine, science and anatomy.

In Cuba between 1900 and 1901, Major Walter Reed and his acting assistant surgeons wrestled with yellow fever. When Jesse Lazear received orders from the Army Medical Corps, he acquainted himself with Walter Reed and the two joined forces to create a research team to study yellow fever where it originated. Their goal was to study the cause of yellow fever. Previous research had led them to assume it was either mosquitoes or fomites. The research team in Havana’s “aim was confirmation of the mosquito theory and invalidation of the long-held belief in fomites.” While they were able to prove their theories, another important aspect that emerged from this experiment was the notion of informed consent. Written in both English and Spanish, and done “with the advice of the Commission and others, he [Reed] drafted what is now one of the oldest series of extant informed consent documents.” The informed consent forms required the men to be over the age of 25, and allowed them the opportunity to exercise their free will. They signed that they were volunteering to participate in the experiment “and as a reward for participation would receive $100 ‘in American gold,’ with an additional hundred-dollar supplement for contracting yellow fever. These payments could be assigned to a survivor, and the volunteer agreed to forfeit any remuneration in cases of desertion.”

While Reed and his team made efforts in the early 20th century towards an ethical model for human experimentation,

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38 Shamoo and Resnik, 184.
39 “The United States Army Yellow Fever Commission (1900-1901),”
Univsersity of Virginia Health Sciences Library Historical Collections,
40 “The United States Army Yellow Fever Commission.”
41 “The United States Army Yellow Fever Commission.”
42 “The United States Army Yellow Fever Commission.”
some of the clearest and most recent examples of unethical human research can be seen in Nazi and Japanese experimentation during WWII. In the concentration camps, the prisoners were at the mercy of their captors. Nazi medical doctors within the concentration camps had an unfathomable degree of freedom in performing experiments. Humans were treated like guinea pigs and subjected to the experiments of their physicians’ choice which usually fell into at least one of three categories: experiments for military research purposes, experiments to prove racial superiority, or experiments based on the interest of a particular scientist or researcher. Among these (but not limited to these) were typhus experiments, malaria experiments, high altitude experiments, hypothermia experiments, seawater experiments (to determine possibilities for making seawater potable), polygal (blood coagulation) experiments, mustard gas experiments, and sterilization experiments.

In China during WWII, the Japanese implemented their very own system of medical and biomedical experimentation on subjugated people and prisoners-of-war. Unit 731 was “the world’s largest and most comprehensive biological warfare programme [sic].” It was responsible for dropping “plague-infected fleas… over Chinese cities, causing epidemics, [and pouring] cholera and typhoid cultures… into wells. Prisoners were dissected alive without anesthetics. Others were subjected to pressure changes that made their bodies literally explode.” While there is evidence of an American and Japanese cover-up, it is estimated that “more than 10,000 Chinese, Korean and Russian POWs were slaughtered in these experimental facilities.” Even as some Nazi doctors were condemned at the Nuremberg trials, all the Japanese doctors who had been posted to Unit 731 “returned as pillars of the postwar medical establishment, as deans of medical schools and heads of pharmaceutical companies…” [When asked about Unit 731 later,]

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45 “Unit 731” BBC February 1, 2002.
they] complained of wasting the best years of their lives on medical research that could not be continued after the war.”

The lasting legacy of WWII and human medical experimentation was the Nuremberg code. During the Nuremberg Trials, one trial was devoted entirely to medicine. Sometimes called the Doctors’ Trial, *U.S.A. v. Karl Brandt et al* transpired between 1946 and 1947. During the trial, “twenty-three doctors and administrators [were] accused of organizing and participating in war crimes and crimes against humanity in the form of medical experiments and medical procedures inflicted on prisoners and civilians.” The doctors were “indicted on four counts: 1. conspiracy to commit war crimes and crimes against humanity; 2. war crimes (i.e., crimes against persons protected by the laws of war, such as prisoners of war); 3. crimes against humanity (including persons not protected by the laws of war); and 4. membership in a criminal organization (the SS).” The exact crimes they were charged with included “twelve series of medical experiments concerning the effects of and treatments for high altitude conditions, freezing, malaria, poison gas, sulfanilamide, bone, muscle, and nerve regeneration, bone transplantation, saltwater consumption, epidemic jaundice, sterilization, typhus, poisons, and incendiary bombs.” The experiments were performed on concentration camp inmates and did not involve any kind of informed consent. While in some cases, patients found ways to be medical test subjects for the ‘perks’ it invoked (i.e. less crowded living conditions, more food, not having to work), they were subject to the will of the camp doctor and could be sent off for experimentation as easily as they could be sent off for dissection or the gas chambers.

Karl Brandt was the primary defendant because of his position as the “senior medical official of the German government

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48 “Medical Case Overview.”
49 “Medical Case Overview.”
Project Operation Whitecoat during World War II; other defendants included senior doctors and administrators in the armed forces and SS.\textsuperscript{50} The results of the trials were staggering. Brandt and six others were sentenced to death and executed, nine others were given lengthy prison terms, while the rest were acquitted. Besides the executions and prison terms, the Nuremberg code was established for appropriate codes of conduct for ethical research using human beings.

Following WWII, human medical experimentation was forced to revise itself according to the horrors that had been seen via Nazi and Japanese medical experimentation. However, research purposes shifted from germ theory to creating new biochemical weaponry. Much of this shift in the United States can be attributed to the newfound information acquired from giving impunity to certain perpetrators of WWII, particularly Unit 731, in exchange for research and data.

Despite the Nuremberg code, ethical abuses persisted for quite some time. One of the reasons for this may be that “many researchers here [in the U.S.] thought the Nuremberg Code applied only to ‘barbarians’ and not to ‘civilized physician investigators’… so human-subject research was not as strongly influenced by the principles of the Nuremberg Code as it ought to have been.”\textsuperscript{51} A striking example of this is the Tuskegee syphilis experiment. Though it began in the 1930s, it continued well into the 1970s. This study, which occurred in public health facilities in Tuskegee, Alabama, was designed to study effects of later-stage syphilis on African-American men.\textsuperscript{52} Funded by the U.S. Department of health, six hundred men participated in this study. Those who participated were not informed that they had syphilis or that they were partaking in a medical experiment. Infected participants were merely told “that they had ‘bad blood’ and could receive medical treatment for their condition, which consisted of nothing more than medical examinations. Subjects also received free hot lunches and free burials.”\textsuperscript{53} Though a dependable treatment for syphilis was

\textsuperscript{50} “Medical Case Overview.”
\textsuperscript{52} Shamoo and Resnik, 187.
\textsuperscript{53} “Medical Case Overview.”
available in the 1940s, it was not administered to the test subjects and the experiment continued despite the ethical concerns that this raises.

In the 1950s, thalidomide, an approved drug in Europe, was given to pregnant women because physicians believed it to help with nausea and sleep deprivation. Unfortunately, it was soon learned that exposure to thalidomide during the first trimester of pregnancy could cause severe deformities in the fetus. Most the women did not know that thalidomide was still an experimental drug and did not give informed consent. Thalidomide caused many of the babies to have shortened and/or missing limbs. It is estimated that “some 12,000 babies were born with severe deformities due to thalidomide.”

From 1956-1980, “a team of infectious disease experts from New York University working under a distinguished researcher, Dr. Saul Krugman, had been doing hepatitis research at the Willowbrook School on Staten Island, New York.” Willowbrook was a state-run facility for mentally handicapped adolescents and children. In “trying to find a way to protect people from hepatitis, Krugman and his colleagues deliberately infected some of the children with the virus.” Though hepatitis isn’t generally life threatening, it can cause permanent damage to the liver. The conditions at Willowbrook made headlines in the 1960s; “viral hepatitis was endemic… most children who entered Willowbrook became infected within 6-12 months of admission.” Though Krugman and his team did acquire informed consent from the parents of the children, critics of the experiment felt that the parents were coerced into acceptance because they could not care for their special-needs children on their own and were not fully aware of the stipulations of the study.

In 1964, The Nuremberg code would be revisited in order to create a new model for human medical experimentation. The “World Medical Association met in Helsinki, Finland to… add… 2 novel elements [to the basis of the Nuremberg code]: the interests

54 Schneider, “History of IRB.”
56 Moreno, 250.
57 Shamoo and Resnik, 187.
of the subject should always be placed above the interest of society; [and] every subject should get the best known treatment." 58 The Declaration of Helsinki, however, did not put an immediate end to the unethical human experiments that were still transpiring, or to future unethical medical experiments. In fact, experiments seemed to increase at an alarming rate. For example, continuing through the 1960s was the Jewish Chronic Disease Hospital Study in which twenty-two elderly, severely ill, and mostly demented patients with weak immune systems were injected with live cancer cells in order to see the effects and spread of cancer on those with compromised immune systems. 59 Between 1963 and 1973, a million-dollar Atomic Energy Commission study used prison inmates from Oregon and Washington and had their testicles irradiated. 60 The government used “approximately 6,700 human subjects… in experiments involving psychoactive chemicals [like LSD]… Other agents were also used, including morphine, Demerol, Seconal, mescaline, atropine, and psilocybin.” 61 Pregnant women and mentally handicapped children were fed radioactive iron, and cereal, respectively; all without informed consent or an awareness of their participation in the studies.

Though many tests were under the individual supervision of the directing scientists or physicians, the Department of Defense (DOD) “and other national security agencies conducted or sponsored extensive radiological, chemical, and biological research programs.” 62 Since these were largely for military intelligence, the scientific and military communities cooperated together for more than thirty years to attempt to stay ahead of the United States military rivals. 63 Because of their secretive nature, the exact number of experiments and test participants remained hidden from public knowledge. 64 The secret nature of the programs and

59 Rice, 1327.
61 Moreno, 9.
62 Human Experimentation: An Overview on Cold War Era Programs, 1.
63 Goliszek, xiii.
64 Human Experimentation: An Overview on Cold War Era Programs, 1.
experiments has also made it difficult for test subjects to acquire deserved medical care later in life. While the government does offer compensation for its employees (military and civilian) who have been injured on the job, the lack of information, risks, and centralized information has caused difficulty for those who had experiments performed on them from 1940-1974 and are attempting to claim poor health as a result.65 The scope of tests conducted under military or federal direction served to “support weapon development programs, identify methods to protect the health of military personnel against a variety of diseases and combat conditions, and analyze U.S. defense vulnerabilities.”66

Project Operation Whitecoat

Project Operation Whitecoat was a project to identify and protect civilians and the military from biological and chemical agents. Since the use of these agents in earlier wars, the desire to investigate these weapons and their effects became a military priority.67 Project Operation Whitecoat originated from a smaller test called CD-22. CD-22 was a coordinated effort between the “Chemical and Medical elements of the Army and involved the supervision of the Secretary of the Army, Army Chief of Staff, and the Secretary of Defense.”68 In October of 1954, Lt. Colonel W.D. Tigertt of the U.S. Army contacted Theodore R. Flaiz, M.D., Secretary of the Medical Department of the General Conference of SDAs. In a memorandum from Tigertt to Major General George E. Armstrong, MC, the Surgeon General of the Department of the Army, Tigertt explains the letter he wrote to Flaiz. In the memo, he states he contacted Dr. Theodore R. Flaiz, Secretary of the Medical Department for the General Conference of Seventh-Day Adventists as he wrote:

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65 Human Experimentation: An Overview on Cold War Era Programs, 2.
66 Human Experimentation: An Overview on Cold War Era Programs, 1.
68 U.S. Army Medical Research Institute of Infectious Diseases, section 1.
To ascertain the views of his church organization as they relate to the use of volunteers in medical research... Dr. Flaiz proposed that it should be considered by a small group of the Conference Officers and agreed to bring such a group together during the week of 18 October. Dr. Flaiz appeared to be extremely interested and to consider that it was a real opportunity for members of the Seventh-Day Adventist group to assist in the national defense. It is possible that the Church will actively support the project and assist in obtaining the necessary volunteers.69

Major General Armstrong, too, followed up with a letter to Dr. Flaiz that expressed his hope that the General Conference of SDAs would find the program acceptable and suitable for SDA participation. Participation, Major General Armstrong stated, would allow SDAs to “make yet another significant contribution to our nation’s health and to our national security.”70

On October 19, 1954, Dr. Flaiz replied to Major General Armstrong. In the letter, he stated that the General Conference “appreciated very much Colonel Tigertt’s clear and patient delineation of the plan for the medical research project... If any one should recognise [sic] a debt of loyalty and service for the many courtesies and considerations received from the Department of Defense... Adventists, are in a position to feel a debt of gratitude for these kind considerations.”71 He continued that the General Conference felt that “the type of voluntary service which is being offered to our boys in this research problem offers an excellent opportunity for these young men to render a service which will be of value not only to military medicine but to public health generally... It should be regarded as a privilege to be identified with this significant advanced step in clinical

research.”72 The letter ends stating that the General Conference would work on releasing a statement regarding the subject within a few days. In the statement, it is expressed “it is the attitude of Seventh-Day Adventists that any service rendered voluntarily by whomsoever in the useful necessary research into the cause and the treatment of disabling disease is a legitimate and laudable contribution to the success of our nation and to the health and comfort of our fellow men.”73

There are several reasons that might indicate why the military sought out SDAs. One aspect, that many like to focus on, is that SDAs were considered an ideal control group. With so many church principles focusing on health and wellness, SDAs refrained from drinking, smoking, most ate a vegetarian diet and most were in general good health. According to “Colonel Dan Crozier, then commander of USAMRID [U.S. Army Medical Research Institute for Infectious Diseases, previously USAMU, U.S. Army Medical Unit]... because of high principles and temperate living, Adventist men are more nearly uniform in physical fitness and mental outlook.”74

Another aspect is the commitment of the SDA church to medical advancement. Over the course of its history, the SDA church had established itself as a premiere health-serving institution. Presently, “the SDA church organization owns and operates a health care system that includes 168 hospitals, 433 clinics, and 130 nursing homes or retirement centers. SDA educational institutions include 55 nursing schools... [with] approximately 7300 nursing students currently enrolled...”75 According to a report by the National Service Organization of the General Conference of SDAs, SDAs were recruited because the “volunteers must be men in good health who are motivated to

73 Statement of Attitude Regarding Volunteering For Medical Research.
hazard some risk for a humanitarian cause.”

Further, the fact that most of the SDA men recruited for POW had similar backgrounds, lifestyle, education and morals allowed for favorable research conditions on a group requiring minimal disciplinary actions.

Another possibility is the relationships that had been formed with SDAs and the military through the years of established cooperative noncombatancy and Red Cross training academies. Also, it is important to note “Adventist basic trainees at Fort Sam Houston, Texas...[were] the largest single group of 1-A-O soldiers.”

SDAs may have also decided to embark on this project because medicine was seen as a form of evangelism. According to Francis McLellan Wilcox, former editor for the Review and Herald, an SDA magazine, “this work [of evangelism] has been carried forward in four great divisions, namely, evangelistic, publishing, educational, and medical... all of these agencies should be used for the accomplishment of one end,—the salvation of souls.”

Regardless, with the approval from the General Conference, recruitment and testing began almost immediately. In November of 1954, Lt. Col. Tigertt recruited twelve individuals from Fort Sam Houston, San Antonio, TX. On December 30, 1954, the twelve recruits left Fort Sam Houston to Camp Detrick near Frederick, Maryland and on January 14, 1955, the secretary of the Army granted the authority to permit “research investigation utilizing volunteers in defense against biological warfare.” In all, Tigertt “indicated that approximately 80% of Seventh Day Adventists who qualify and are approached by him do volunteer for this particular assignment.”

CD-22 was a series Q-fever tests. Q-fever is a “zoonotic disease... [and is transmitted to] humans usually... by inhalation.” Once an individual was designated for CD-22, and later, Project Operation Whitecoat service, they were forbidden

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76 Taylor and Carr, 707.
77 Taylor and Carr, 3.
78 Wilcox, 18.
79 U.S. Army Medical Research Institute of Infectious Diseases, “Project Whitecoat: A History,” section 1.
from receiving vaccines for typhus, yellow fever, cholera and the plague while in basic training. For CD-22, volunteers from Camp Detrick were flown to Fort Dugway, Utah and were exposed to Q-fever via wind measures. Others remained at Camp Detrick and were exposed via aerosol measures in the notorious eight ball sphere, used for containment and disbursement of airborne pathogens and directed to the inhaler.

In the experiments, the volunteers were “ordered onto wooden platforms at various levels. When the atmospheric conditions were right… medical officers conducting the tests put on their gas masks and radioed to overhead aircraft to commence dispersing the infectious agent onto the test sight.”82 The purpose of the experiment was to acquire “dose-response data on… Q-fever in humans.”83 After being exposed to the infecting bacteria, *Coxiella burnetii*, the men returned to Fort Detrick for “monitoring and observation.”84 Exposure to *C. burnetii* can cause fever, nausea, vomiting, chest pain, chills, sweat, weakness, and malaise. When the men returned to Fort Detrick, they “were left to develop fever for three days before antibiotic therapy was initiated.”85 Q-fever investigations were “terminated… in 1956 after yielding the first scientific data of its kind, gathered by U.S. military investigations from experiments conducted on human volunteer subjects.”86 Tigertt and Beneson (another doctor involved in the experiments) published the results of the Q-fever tests in *Transactions of the Association of American Physicians* in 1956.

When tests for CD-22 were terminated, a new phase of tests was to begin but with a much broader scope. Project Operation Whitecoat was designed to test:

The vulnerability of man to biological agents; prevention and treatment of BW (biowarfare) casualties; and identification of biological agents.

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82 Goliszek, 52.
83 U.S. Army Medical Research Institute of Infectious Diseases, “Project Whitecoat: A History,” section 1.
84 Goliszek, 52.
85 Goliszek, 52.
86 U.S. Army Medical Research Institute of Infectious Diseases, “Project Whitecoat: A History,” section 1.
Project Operation Whitecoat

Information such as the minimum infectious dosage, effectiveness of prophylactic and therapeutic measures, serologic responses to infection and the effects of various doses of inoculum, eventually provided answers to most initial questions contained within the research objectives.87

Again, Camp Detrick would serve as the experimental test center. Camp Detrick came into existence in the early 1940s and was intended to serve as a large-scale, militarized research facility. The location was ideal because of it’s close proximity to Washington DC and the Edgewood Arsenal, a chemical warfare research center.88 Camp Detrick, officially named in April 1943, was the center for early military research of “vaccines, toxoids, antibiotics, disinfectants, and antiseptics… all the while developing techniques for detecting, sampling, and identifying many pathogens and their toxic products. Simultaneously, sterilization procedures and decontamination protocols required development and improvement.”89 The termination of CD-22 and the beginning of Project Operation Whitecoat coincided with the changing of name from Camp Detrick to Fort Detrick, making it a permanent facility.90

Project Operation Whitecoat was no secret to the SDA community. In an October 17, 1966 issue of the North Pacific Union Gleaner, an article was devoted entirely to POW. POW was described as a study “aimed at developing protective measures against disease-producing organisms which might be disseminated by an enemy in the event biological warfare is ever used against this country.”91 Even youth Bible lessons discussed POW. On October 8 and 15, 1963, a two-part lesson plan was given on POW. POW, “after eight… years of continuous work… is still going… The project simply involves medical experimentation. But as a

87 U.S. Army Medical Research Institute of Infectious Diseases, “Project Whitecoat: A History,” section 1.
89 Mole, Min and Mole, 12.
90 Ibid., 14.
91 “Project Whitecoat,” North Pacific Union Gleaner, October 17, 1966, 16.
result of this activity the Army Medical Service has made material advances in the development of suitable methods of prevention and treatment of infectious diseases… Thus all citizens benefit from the program, not only members of the armed forces.”92 It describes the experience of Tom Kopko, a young GI, and his first experiences as a POW volunteer. The article follows him from his plane ride from Fort Detrick to his testing area. It describes a wind experiment similar to the aforementioned CD-22 experiment. When the conditions for the experiment were right, the experiment commenced. After the experiment, the men were taken back to their test center and “‘were told to remove our clothing as quickly as possible. A warm shower came next… we then went through an ultra-violet-light area and found ourselves in a room where our regular Army clothes were waiting for us.’”93 The duration of the individual test was short. When the men returned to Fort Detrick, they were placed in isolation where they were monitored throughout the day for several weeks or months, depending on the individual.

Throughout the duration of POW, the volunteers “were involved in 153 research projects to determine the safety of vaccines and antibiotics and prevention and treatment of… Q Fever, Tularemia, Sandfly Fever, Typhus Fever, Typhoid Fever, Rift Valley Fever, Rocky Mountain Spotted Fever, Yellow Fever, Plague, and Eastern, Western and Venezuelan Equine Encephalitis.”94 Other tests and experiments sought to test the effectiveness of protective materials such as masks and suits, others endured hypothermia and sleep deprivation tests and other tests sought to develop appropriate “decontamination processes… [for use] in the space program, in hospitals, biological outbreaks (e.g., present bioterrorism) and for the protection of research workers.”95

The SDA church’s participation in POW did not go without consequence or insult. In University Scope, the newspaper for Loma Linda University, an article entitled “GC panel denies aid

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93 Roth, 16.
94 The Whitecoat Project Information Sheet (The Whitecoat Foundation, n.d.).
95 The Whitecoat Project Information Sheet.
charge to biological warfare test” explains one of the more prominent accusations against the church for its participation in POW. During the turbulent social unrest of the 1960s and 1970s, links between church and government brought heated debates and accusations, one of which charged SDAs with helping the government create biological weapons. In light of these attacks:

A committee of the General Conference of Seventh-day Adventists, under the chairmanship of Neal C. Wilson, vice-president of the North American division, was appointed to investigate the project. On September 11, Mr. Wilson and six other members of the committee, including two physicians, visited Fort Detrick and the commanding officer of Project Whitecoat, Colonel Daniel Crozier, U.S. Army.96

The committee visited Fort Detrick, acquired material evidence and was to issue a report of its findings to Adventist colleges and universities. Dr. Winton Beaven, one of the physicians on the committee, was responsible for reporting the findings. When:

Speaking for the committee [he said], ‘…the project has no relationship to…chemical or biological warfare, either directly or indirectly… the Army directive which established Project Whitecoat clearly reads that it is related to defensive aspects in developing… biological protective measures, diagnostic procedures, and therapeutic methods… None of the work in this project is used to improve bacteriological weapons of the United States.’97

He stated that POW was not classified. He also stated that professionals, both within and outside of the armed forces, performed the tests that were based on sound research, and these same professionals conducted the monitoring after the

96 “GC panel denies aid charge to biological warfare test,” University Scope, October 23, 1969, 1.
97 “GC panel dies aid,” 2.
experiments. According to the article, Dr. Beaven explained, criticism was being directed towards POW because its experiments were being performed in the building adjacent to the one housing the top-secret experimentation. According to Beaven, POW was freely accessible and not top-secret.98 According to Clark Smith, director of the NSO, “less than one percent of the Whitecoat work is classified… the only reason so much remains unpublished is that it is not complete.”99 As experiments were completed, many were published in highly reputable journals. For example, in 1966, the American Society for Microbiology published a POW study for peer review. At the end of the article entitled “Antibiotic Prophylaxis and Therapy of Airborne Tularemia,” the scientists specifically stated “these studies were supervised by the commission on Epidemiological Survey of the Armed Forces Epidemiological Board. The cooperation of the War Service Commission of the Seventh Day Adventist Church… [is] gratefully acknowledged.”100

The church was greatly involved in the operations of POW. When Tigertt went to Fort Sam Houston to recruit more SDAs to POW, Elder Clark Smith of the NSO went with him to assure the men that, while their service to this project was voluntary and up to their own personal discretion, the church approved it as a form of noncombatant service. When a man wanted to participate in POW, he was interviewed to examine psychological health and was requested to fill out a questionnaire provided by Elder Smith. An SDA chaplain was allowed to be present during briefings and interviews. The local SDA chaplain was provided with a finalized list of POW participants “…for posting on [the] church bulletin board.”101 Elder Smith was also allowed to answer questions should they arise, and the local SDA chaplain helped arrange housing for married recruits.

In an early U.S. Army Medical Research and Development Command meeting regarding POW, Col. Tigertt knew right away

98 “GC panel dies aid,” 2.
that it was essential to maintain amicable terms between USAMRIID and the SDA church. In the minutes of that meeting it states “this relationship was essential to continue work at his laboratory…” Tigertt felt that failing to keep up on their part of the bargain would be a blow to the relations between the government and the cooperation with the SDA church. Further, in order to maintain these good relations, Col. Tigertt recommended that those POW men who wished to stay on assignment after their experiment be allowed to do so in order to gain medical experience. According to Tigertt, “…these personnel are good men, educated and in a number of cases will continue their education in medicine… If it were the policy that personnel who… participate in Operation Whitecoat would be denied the additional specialized training… a large number of those personnel who had ordinarily applied… would no longer apply.” By maintaining a mutually beneficial relationship, USAMRIID would get the volunteers it needed to conduct its research, the SDA church would maintain its right to noncombatancy, and volunteers would be allowed experience with medical research.

The church was even involved at the local level. Frederick SDA Church, being the closest SDA church to Fort Detrick, provided these men with a church community away from home. Even though medical aid was seen as an acceptable form of ‘work’ on the Sabbath, POW volunteers got Saturdays off. Frederick SDA church members Dr. Frank Damazo and his wife took it upon themselves to take care of these fellow SDAs for the duration of their stay, and the duration of the project itself. Very quickly, the entire “…congregation provided interest, care, and support for all Whitecoat members… This church gave special help to those men and families nearby during the entire time the program was in operation.” Frequently, potlucks and fellowships would be held at church members’ homes so that the POW volunteers and church members could have the opportunity to become acquainted on an individual basis.

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102 Minutes of Operation Whitecoat Meeting, 1.
103 Minutes of Operation Whitecoat Meeting, 2.
104 Mole, Min and Mole, 126.
Guarded Secret or Misunderstanding?

Because of the openness of the experiments and the ability for the men involved to associate with other volunteers and people outside of the experiment, there was no element of secrecy in POW. With the wide variety of primary sources (both religious and secular) offering articles and experimental research findings, it is seemingly incomprehensible to conclude that POW was a secret government experiment to create biological offensive weapons.

It was in the church’s best interest to maintain contact with military personnel to ensure that their support of a particular program was not given under false pretenses or inaccurate information. It was also in the best interest of military personnel to ensure that POW was performed with the utmost ethical standards. The informed consent forms for volunteers were very explicit and clear. The volunteer had written permission to “revoke… consent, and withdraw from the study without prejudice.”

Another clear indication of a difference between POW and other military medical experiments is the bond and community that POW test subjects still have today. POW volunteers have engaged in reunions for approximately two and a half decades. Reunions are typically alternated between east and west coast, with most east coast reunions at Frederick SDA church. POW volunteers are not anonymous; they have names, files, informed consent forms, photographs, reunions, and mailing lists. If the military attempted a secretive biological offensive warfare program with POW, then they failed to do so. This is quite evident in the amount of correspondence and literature that was out at the time: the church leadership and the church members knew about it.

POW was created with the intent to serve as a defensive measure against biological warfare. Whether or not information acquired from POW was used as a measure of offensive biological warfare is a matter of debate, but with all advancements in science, information can be used as easily for both good and evil. Radiation can be harmful, but when used effectively can cure cancer. Surgical advancements in reproductive health can allow a couple that no longer wishes to conceive to sterilize themselves, but

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people were forcibly sterilized in the early 20th century around the globe for being genetically inferior. POW is no different from these aforementioned examples. If the knowledge is there to help someone, then the information can just as easily be construed to harm someone. The dialectic of medical theory applies no more to POW than it does to studies of other medical conditions.

POW was disbanded in 1973. Some sources indicate this date because it was the year the draft ended. Others, however, cite Biological and Toxin Weapons Convention of 1972 and the resulting treaty calling for the end of all biological weapon production, development and stockpiling as another possible reason for the formal end of this program. However, if the latter of the two options is correct in determining why POW ended, this is disconcerting to those who believe POW to be directed for the purpose of defensive measures. For according to the treaty, all signatories must destroy or “divert to peaceful purposes” all biological agents, toxins, weapons, etc.106 If POW were purely defensive or peaceful, said treaty obligations would not have applied to it. Further, no documentary evidence linking the two events has been found. However, the end of the draft may also have caused a disbanding in POW, as the end of conscription would limit the influx of 1-A-Os, thereby depleting their exclusive test group and necessitating a new, more open biological test program, making it a much more viable reason for termination.

Conclusion

Presently, the SDA church’s position on the military has shifted dramatically. While it still does not encourage its members to actively enlist in the military, it recognizes free, individual choice. Ideally, it would have its members serve in noncombatant roles, but it does not castigate those who choose combatant roles; “while the church ministers to noncombatant members in the army, as well as to pacifists and combatants, it recognizes that individuals

make free choices…” As a result, the SDA church is still actively involved in its members’ military affairs. According to an article in the SDA Biblical Research Institute website, theologian Angel Rodriguez states, “when service in the military may result in an open conflict with religious convictions… we [the church] must be willing to enter into dialogue with government officials in an effort to obtain for our members the right to practice their religious convictions while in the military.”

While some may question the church’s involvement in government and/or military affairs, one thing remains certain: were it not for the SDA church’s active involvement in Project Operation Whitecoat, it is feasible that the many men who volunteered could have become unidentifiable statistics and numbers, without names, faces or voluntary consent forms, subject to medical health uncertainties—anonymous, and only remembered or represented as figures at a congressional hearing for restitution and identification of former military medical experiment test subjects. The SDA church played an important and integral role in ensuring the ethical standards prescribed by the Nuremburg Code and the Helsinki Declaration were followed in the dealings with its members as test subjects in POW. Further research is necessary to determine the full extent of church involvement and to gain a clearer understanding of why POW was disbanded. Doing so could prove that some U.S. government and military experimentations were not buried under a dark shroud of mystery and deception.

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