

## **Adventists and Biological Warfare**

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For 20 years, Seventh-day Adventist noncombatant servicemen participated in defensive biological warfare research for the United States Army. The program, based at Fort Detrick, Maryland, was known as Project Whitecoat. Approximately 2,200 Adventists volunteered for medical research experiments. Another 800 assisted in the program as laboratory technicians, ward attendants, and clerks.<sup>1</sup>

Both the Adventist Church and the Army praised this project highly. Members of Congress, scientists, and the press criticized the Adventist Church's involvement. Some of the questions raised about this largely forgotten project remain unanswered. Was Project Whitecoat a humanitarian program, devoted solely to the development of vaccines and treatment for disease? Or were critics correct when they charged that the Adventist Church collaborated with the U.S. Army, risked the health of its members, and even supported the development of offensive weapons for conducting germ warfare? Project Whitecoat continues to raise concretely the issue of how the Adventist Church should relate to government and its use of science.

In 1953 and 1954, human volunteers participated in a study of Q-fever, known as the CD-22 program. The success of this project, and the authorization to use volunteers for defensive studies, cleared the way for the establishment of Project Whitecoat. The exact origin of the name is unclear, but the first research project, using specifically Whitecoat volunteers, began in 1958, with the goal of identifying the infectious dosage of *P. Tularensis*. In 1964, Whitecoat volunteers also began participating in studies involving immunizations for both tularemia and Venezuelan Equine Encephalomyelitis (VEE).<sup>2</sup> By the time Project Whitecoat ended in 1973, with the discontinuation of the draft, volunteers had also participated in research involving Eastern and Western Equine Encephalomyelitis, sand fly fever, yellow fever, typhoid fever, Rocky Mountain spotted fever, Rift Valley Fever, and several other diseases. In addition, Whitecoat men were used to compare gas masks and test isolation suits for astronauts, and participated in numerous other experiments that used both men and animals as subjects.<sup>3</sup>

### **Adventists Join Whitecoat**

The involvement of Seventh-day Adventists in Project Whitecoat began in October 1954, when George E. Armstrong, U.S. Army Surgeon General, contacted Theodore R. Flaiz,

secretary of the Medical Department of the General Conference of Seventh-day Adventists. Armstrong wished to obtain church approval for the Army to approach Adventist draftees about volunteering for a research program that would contribute significantly to the nation's health and security.

Church and military leaders gave various reasons for the Army's choice of Seventh-day Adventist men, ranging from the "well-known humanitarian ideals" of the Adventist Church [4](#) to the basic need to narrow the pool of candidates. Although not all volunteers were vegetarians, nondrinkers, and nonsmokers, Adventists did provide a fairly homogeneous group of research subjects. Col. Dan Crozier, commanding officer of Project Whitecoat after 1961, explained, "Because of high principles and temperate living, Adventist men are more nearly uniform in physical fitness and mental outlook. We find the soldiers to be cooperative and willing to serve." [5](#)

The Adventist Church had previously demonstrated a strong record of cooperation with the military, illustrated by the formation of the Medical Cadet Corps. Also, many Adventist physicians, with the full support of the church, attended medical school on government stipends. In World War II, Adventist doctors and nurses from the White Memorial Hospital staffed the 47th Army General Hospital (reportedly with the best dance band in the Pacific Theater).[6](#) As J. R. Nelson expressed it, "Adventists, even though considered noncombatant, are willing to serve their country in time of war." [7](#)

Church leaders praised Adventist war heroes from World War II, giving special attention to the accomplishments of Corporal Desmond Doss, a noncombatant medic. Doss, who in 1945 saved the lives of more than 75 men in one battle on Okinawa, received the Congressional Medal of Honor. Several years later, the Adventist War Services Commission established a training camp for the Medical Cadet Corps, and named it Camp Desmond T. Doss.[8](#)

With such events in mind, Flaiz responded positively to Armstrong's proposal. Flaiz wrote that "if anyone should recognize a debt of loyalty and service for the many courtesies and considerations received from the Department of Defense, we, as Adventists, are in a position to feel a debt of gratitude for these kind considerations."[9](#)

These considerations were most likely related to Sabbathkeeping problems encountered by Adventists in the service. To maintain a positive relationship with the Army, some measure of participation was expected. As one denominational leader expressed it, "The MCC [Medical Cadet Corps] was set up to help the youth to be partially trained in medical military matters as noncombatants so they could be assigned to the medical service where the problems of Sabbath observance are much simplified."[10](#) In part, the church supported Project Whitecoat for the same reason.[11](#) One critic of church policy, in a poem about the project, wrote, "We're trained to serve, not. . . . Our country right or wrong, we say—/Just let us keep our holy day."[12](#)

### **Conscientious Cooperators**

In the United States, most healthy males registered 1-A, for regular combat duty, while conscientious objectors, who totally opposed war and refused military service of any type, chose the 1-O option. The Adventist Church recommended filing for the compromise status of 1-A-O: conscientious objectors who would enter the military as noncombatants. Noncombatants would serve as medics, but would not bear arms.

The church found ways to support the government while it waged war. On numerous occasions, church leaders equated the 1-A-O position with "conscientious cooperation." Clark Smith explained,

. . . we are not a pacifist church in the technical sense of the way the word is used. Certainly we abhor war. However, war is in the realm of the political rather than the religious and is a matter which we as a church have felt that it is inadvisable to comment as to whether or not the government should wage that war.[13](#)

In spite of this seemingly neutral position, the church strongly encouraged its young men to register as 1-A-O.[14](#) A number of men who wished to receive 1-O (conscientious objector) status felt that the church did not support their decision. The 1969 Autumn Council voted to recommend that young men first consider the 1-A-O classification, but that anyone who made the personal choice of 1-O would also receive the support of the church.[15](#) Even after this, however, it was sometimes difficult to obtain support for a 1-O position.[16](#)

By advocating the 1-A-O draft position, denominational leaders presented the church in a positive light to the Army. The resulting relationship between the Adventist Church and the U.S. Army Medical Unit (USAMU, later USAMRIID—U.S. Army Medical Research Institute of Infectious Disease) lasted 20 years (1954 to 1975). Army personnel selected Project Whitecoat volunteers twice a year from noncombatant servicemen completing Basic and Advanced Individual Training at Fort Sam Houston, Texas.

To be considered for the project, the men had to have a 1-A-O draft status and indicate the Seventh-day Adventist church as their religious preference.[17](#) The official Whitecoat recruiters were the commanding officer and detachment commander, USAMRIID. The Director of the National Service Organization (NSO) of the General Conference accompanied these Army officials to Fort Sam Houston.[18](#) The General Conference official was present to answer questions, and to ensure that there was no coercion on the part of Army recruiters. Eligible individuals received a complete explanation of the project, including discussion of the risks involved. Additional opportunity for the men to question the Army officials was provided the next day, following individual interviews. At that point, those who wished to volunteer for the program signed a consent statement with the understanding that "volunteers may become ill and that the program is not without hazard."[19](#)

Project Whitecoat became especially attractive in the mid-1960s, when the majority of draftees received assignments to Vietnam. Despite the lofty ideals of service proclaimed

by some volunteers, the majority of Adventists volunteered for medical research for more pragmatic reason—primarily the desire to stay in the United States. Others wished to further their medical knowledge or avoid Sabbath confrontations, while some were encouraged to join by friends and family.<sup>20</sup> Some of the participants were selected because of their athletic ability, since the project's commanding officer liked to have a good baseball team.<sup>21</sup> Some participants say the program was well-known for its easy life-style. If the volunteers were not ill while on projects, they watched TV, played volleyball, horseshoes, and croquet, and worked on hobbies and crafts.<sup>22</sup> Cooperators received promotions quickly. In addition, the Army paid volunteers for blood "donated" for research.<sup>23</sup> Some military personnel who did not qualify for the program tried to discredit the project out of jealousy.

### **Entering the Experiments**

Upon arrival at Port Detrick, Whitecoat volunteers underwent complete medical examinations. If health problems were discovered, volunteers were dismissed as research subjects.

All personnel then received regular assignments as lab technicians, animal caretakers, or office clerks. When a research project had reached the level that the directors felt was safe enough to involve human volunteers, the commanding officer summoned the Whitecoat members. He described the proposed experiment, including the purpose and risk involved, and then allowed the potential subjects to ask questions. Each member could then choose to volunteer for that particular project. After volunteering for each project, participants (with two witnesses) signed a release statement. During their term of duty, most Whitecoat members participated in one or two experiments. A few volunteered for five or six.<sup>24</sup> After admission to the research ward, volunteers received another thorough medical examination before experimentation began.

In addition to the Adventist volunteers, early experiments involved inmates from the Ohio State Penitentiary. However, the arrangement was not made public to prevent identification of the patriotic Adventist soldiers with prisoners.<sup>25</sup>

Medical research at Fort Detrick fell into three general categories. The first sort of experiment studied the basic nature of disease-producing microorganisms. Researchers examined the effects of diseases introduced by unnatural methods, such as spreading infectious agents through aerosol sprays. In a biological warfare attack, microorganisms would most likely be released in an aerosol cloud from an airplane, allowing the disease-producing agents to enter the body through the lungs. Pulmonary diseases generally progress more rapidly and are more difficult to treat than other types.<sup>26</sup>

The second kind of experiment studied ways to avoid and treat infectious diseases. The major focus was developing vaccines to combat potential biological warfare agents. The third research category involved developing means to diagnose infection within the shortest possible time. Obviously, more lives could be saved if a disease were identified and treated before the onset of clinical symptoms.

Fort Detrick maintained one of the largest animal farms in the nation. Experiments there used more than half a million animals a year.<sup>27</sup> Before exposing any human volunteers to a disease, researchers performed experiments on mice and guinea pigs, then rhesus monkeys. At the point where animal experiments could not be extrapolated to humans, and Army investigators believed the project to be safe, human volunteers could be used to test defensive measures against the disease.

### **The Military Praises Adventists**

The General Conference proclaimed this research to be humanitarian and worth the risk, while saying that the church did not "support" Project Whitecoat—joining it was entirely an individual decision. The official position of the church was that it merely had no objection to its members participating. From the beginning, however, denominational leaders praised the program highly. In the 1955 "Statement of Attitude Regarding Volunteering for Medical Research," W. R. Beach, secretary of the General Conference, said:

There are still conspicuous blank spaces in our knowledge of disease and its treatment. Research in these areas calls for some of the same selfless devotion in the search for lifesaving knowledge as was manifest by the pioneers of modern medicine.

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.<sup>28</sup>

In the fall of 1966, a denominational representative at Whitecoat selection gave the required statement that the Seventh-day Adventist Church "has investigated the Project Whitecoat and feels that this activity would be in the best Christian tradition." He then assured the volunteers that your church feels that you are doing a very commendable thing" <sup>29</sup> and gave the usual list of advantages to joining Project Whitecoat.

The Army also seemed to be under the impression that the General Conference favored the program. Military officials often praised both the volunteers and the church for assisting with valuable research. In a letter from S. B. Hays to the chairman of the SDA War Service Commission, the army surgeon general mentioned that "we have had the active support of several members of the General Conference."<sup>30</sup> And in a recorded speech addressed to a 1965 youth congress, Col. Dan Crozier gave the names of a number of church leaders who "have all been active in this project and have played a significant role in its continuing success." The names included Joseph R. Nelson, National Service Organization director; Clark Smith, National Service Organization associate director; and Thomas Green, civilian chaplain for the Washington, D.C., area.<sup>31</sup>

For a number of years, the Army paid Clark Smith's expenses to travel with the whitecoat recruiters [32](#) to explain the church position and ensure that all questions were answered. In 1973, Col. Crozier presented Smith with an Army award—the Outstanding Civilian Service Medal—for his work as associate and then director of the NSO, praising him for "distinguishing himself by outstanding service to the U.S. Army."[33](#)

The level of General Conference support varied through the years. Some prospective volunteers reported feeling no church urging at all, [34](#) while others felt strongly encouraged to join the research program.[35](#) But even if the General Conference did not always specifically urge Adventist draftees to join Whitecoat at recruiting sessions, it certainly came close to doing so in church publications. There, the enthusiastic praise is in black and white. A *Review and Herald* article in November 1955 stated:

It is with pride in the courage and unselfish devotion of the men who participated in this project that we indicate that they properly belong in the ranks of those who have gone "above and beyond the call of duty."

Sustain these men with your letters and your prayers as they carry on for God and Country.[36](#)

A later article called the program "humanitarian service of the highest type."[37](#)

The General Conference National Service Organization printed a pamphlet for prospective Whitecoat volunteers, which also painted the program in glowing colors. The pamphlet, written by chaplain Thomas Green, glossed over many negative aspects of the program. Instead, Green listed some of the benefits of being stationed at Port Detrick: knowledge of assignment location, variety of job opportunities, fellowship with other Adventists, and being near the General Conference headquarters and Columbia Union College.

He then addressed the disadvantages. To those who complained that they missed their chance to go overseas, Green replied, "Some have used leave time, however, to take trips overseas in military aircraft." To those who were unhappy with their jobs, or did not get along with their associates, he said that such problems could happen anywhere. The most serious objection involved risking one's health. Green stated that of the more than 1,000 Adventists participants, only a half-dozen had felt that their health had been damaged. He concluded that "most feel they have benefited by the very thorough physical examinations they have undergone upon arrival in the unit."[38](#)

Despite such defenses, criticism of the church's involvement in Project Whitecoat intensified. National Service Organization leaders claimed that the church was not involved: "This is a project of the United States Army and each person engaged in the project makes a personal decision as to whether or not he will volunteer for it."[39](#)

Even when an Adventist official told the men to make their own decisions, having a National Service Organization official from the General Conference present during the

recruitment certainly made Adventist draftees conclude that the church supported the program. One volunteer said that he joined the program in 1955 because he was naive and easily influenced, assured by the mere presence of G. W. Chambers that Project Whitecoat was perfectly acceptable.[40](#)

### **Adventists Involved in Making Biological Warfare Weapons?**

Chemical and biological warfare research received increasing coverage in the press. Both the National Broadcasting Company (NBC) and Columbia Broadcasting System (CBS) aired programs early in 1969. The networks linked Project Whitecoat with development of offensive biological weapons.[41](#) Many newspaper and magazine articles appeared as well, some without adequate background study.

Seymour Hersh, a Pulitzer Prize-winning journalist and author of a well-documented book on chemical and biological weapons, [42](#) published an article on biological warfare in the *New York Times Magazine* [43](#) that referred to Adventist involvement. A few months later, Hersh published an exposé in *Ramparts*. "Adventist leadership," he said, "has elevated service in Project Whitecoat almost to an act of faith." Hersh proceeded to accuse the church of being "content with a morality of form without substance, one in which the arts of disease can be presented as the healing arts, and in which germ warfare can be embraced in pious obedience to a divine injunction against death."[44](#)

Hersh, an otherwise reputable journalist, failed to contact Fort Detrick before writing about Project Whitecoat. He believed that Project Whitecoat was classified, and that he would therefore receive no information. To his credit, Hersh did contact the Adventist Church.[45](#)

In both the *New York Times Magazine* and *Ramparts*; Hersh included a description of symptoms an anonymous Whitecoat participant claimed to experience after being injected with an endotoxin: "Within an hour, the top of my head felt like all the gremlins in Hades were inside trying to emerge by hitting the underside of my skull with sledge hammers."

This quote also appeared about the same time in the *National Examiner*—in a first-person narrative account written by Steven Heczke. Heczke claimed that three of his friends in Project Whitecoat died "horrible deaths" from anthrax. He himself eventually recovered, received \$50, and was free to leave. If he "breathed a word of the experiment," Heczke was told, he would be "held for breach of defense secrets."[46](#)

Col. Crozier responded to the *National Examiner* article, stating that none of the four draftees mentioned had ever participated in any Whitecoat experiment, nor had anyone died as a result of experiments at the unit. Crozier concluded, "There are so many errors and falsifications in this article that further detailed refutation is not considered necessary."[47](#)

Nevertheless, the amount of negative publicity that Project Whitecoat received led many Adventists to question the involvement of their church in the program. Martin Turner, a leading critic of church participation, wrote:

Even if none of the allegations by NBC, CBS, and Mr. Hersh are, in fact, true, the fact remains that the church, rightly or wrongly, has reaped a significant amount of unfavorable publicity from its involvement at Fort Detrick. This hardly seems in line with the instruction to "avoid even the appearances of evil." Even if the Whitecoats are morally just that—lily white—appearances have been such that two major networks and the author of a well-documented book have been misled. [48](#)

Finally, in 1969, the General Conference acknowledged the need to examine the project more closely. Chair of the nine-person Whitecoat Study Committee was Neal Wilson.[49](#) Although none of the committee members was an avowed opponent of Project Whitecoat, several did have reservations about the church's involvement. After a two-hour interview with Col. Crozier, head of Fort Detrick, each member of the committee was invited to ask additional questions. The minutes report that the committee "indicated a complete satisfaction with answers given by Col. Crozier and a unanimous agreement with the program now being carried on." The committee then recommended that an article appear in the *Review and Herald*, "as clearly and completely as possible emphasizing the positive aspects of this humanitarian program"[50](#)

General Conference officials also explained Adventist participation on the basis that Whitecoats engaged in only defensive research treatment of communicable diseases. However, both the offensive and defensive branches of CBW research were located at Fort Detrick. Furthermore, funding for offensive and defensive research came from different sources, but the two facilities were kept together to enable them to share certain equipment.[51](#) Whitecoat members did participate in some experiments in the "hot" area, however, so all were required to have a security clearance.

At the end of this fateful year, President Richard Nixon announced on November 25, 1969, that he would submit to Congress for ratification a ban of chemical and biological warfare. Nixon stated that the United States would renounce the use of chemical and biological weapons and destroy current stockpiles. However, this did not have a great effect on Fort Detrick. There was some pressure to demilitarize the institution and reassign the study of infectious diseases to the National Institutes of Health, or some other similar organization, [52](#) but the defensive research remained unaffected by any new policies.

### **Adventists Linked to *Offensive* Biological Weapons**

The announcement regarding the end of offensive chemical and biological warfare experimentation did not end the controversy over Project Whitecoat. Skeptics claimed that a mere public statement by the Army regarding a change in intent would not necessarily involve any real revisions in procedure. Congressman Richard McCarthy, a



New York Democrat leader in the campaign against chemical and biological warfare, studied government policies and came to the conclusion that Project Whitecoat was "offensive, not defensive, and that the Seventh-day Adventists are being duped."[53](#)

At first, church leaders seemed unwilling to admit that the line between offensive and defensive research is hazy. Pure research in and of itself is neither good nor bad; the results can always be used to help or harm others. Once results are published, it is difficult to prevent misuse or misapplication. And any discoveries made in defensive research laboratories will most likely be adapted for offensive purposes.

Indeed, some critics believed that Project Whitecoat experiments were primarily intended for offensive purposes. The program came under suspicion for several reasons. First, vaccines must be available for one's own troops before it is safe to use any given agent in germ warfare. The Army claimed that having a known immunization for a disease would remove that microorganism from the world's biological weapons arsenal, but as Elinor Langer expressed it,

In the context of biological warfare even life-saving techniques such as immunization take on a strange aspect: immunity among one's own population and troops is a prerequisite to the initiation of disease by our own forces, as well as a precaution against its initiation by others. Some diseases are currently excluded from active consideration as BW [biological warfare] agents chiefly because no vaccines against them have yet been developed.[54](#)

To be a serious threat as a biological weapon, an organism must be highly infectious, producible in quantity, stable, suitable for aerosolization, and, of course, applicable to the mission. Although these criteria limit the potential chemical and biological warfare arsenal to some degree, enemy forces could still use variable strains of familiar microorganisms that would be more resistant or would produce slightly different symptoms than the target population expected.[55](#)

The primary use of the research done at Fort Detrick was for the military. And because the majority of the diseases researched were tropical, it seemed likely that the Army was planning for the safety of its troops overseas. The program had begun with an emphasis on developing vaccines, but by the late 1960s, Army officials had realized the impracticality of full-scale immunization (even for the military) and had shifted the focus to finding more effective means of diagnosis and treatment.[56](#)

The research actually did benefit the public as well as the military. Col. W. D. Tigert commanding officer of Project Whitecoat before Crozier, stated in 1961 that despite the risk involved, the program would have benefits: "The results obtained will be applicable to the control of disease, whether or not use biological weapons ever becomes a reality."[57](#) Fort Detrick published much of its work, and several of the vaccines developed controlled serious epidemics of disease. For example, 1969 outbreak of VEE

in Ecuador traveled north and reached Texas by 1971. Thousands of horses were immunized, 85 to 90 percent of which would have died without the vaccine.[58](#)

Publication of research results calmed some fears that Whitecoat members were engaging in secret offensive experiments. Others, however, felt that the Army was still capable of hiding the truth. Part of the controversy stemmed from questions about whether or not Project Whitecoat research was classified.

A 1967 article in *Science* explained part of the reason that Whitecoat research was not given more publicity:

The chemical and biological weapons program is one of the most secret of all U.S. military efforts—not because it is the most important of our military R&D activities, but because the Pentagon believes it is the most easily misunderstood and because it provokes the most emotional distress and moral turbulence.[59](#)

This perceived secrecy contributed to the conspiracy theories in circulation.

A military fact sheet about Project Whitecoat defended the program as follows:

The entire research program of this organization is unclassified and all information accruing from these studies is reported, if appropriate, in the medical literature. Thus the results of the total effort in the Army research program in medical defenses against biological weapons is made available to the scientific world.[60](#)

Clark Smith reported Col. Crozier as saying that only one project had been classified during the whole history of Project Whitecoat, and that this project was "strictly medicinal in nature," having "nothing to do with offensive warfare."[61](#) Not all of the experiments resulted in published articles because many were either still incomplete or too inconclusive to be of value to others. Crozier further explained that all of the clerks in the office who kept records and typed up research reports were Adventists, so there was nothing secretive about the project; the Army was not hiding anything from the church.

However, Martin Turner and Emanuel Fenz also talked with Col. Crozier, and were told that some of the early Whitecoat research (before Crozier arrived) had indeed been classified. In addition, Crozier said that 73 volunteers had participated in another series of classified experiments in the mid-1960s. Turner and Fenz reported their findings in a letter to the editor of the *Review and Herald*.[62](#)

In this letter, Turner and Fenz confronted several other issues as well, including the fact that of the 160 articles and reports that had been published by USAMRIID, only 23 dealt with Project Whitecoat volunteers, and only five had been published during the first 12 years of the program. Although a number of university campuses tried to deny any connection to chemical and biological warfare, [63](#) many of the medical research

institutions furnished with vaccines from USAMRIID were universities and private laboratories that held contracts to conduct biological warfare research for Fort Detrick.

One member of the General Conference study committee had stated that "none of the work of this organization [Project Whitecoat] is used directly or indirectly to improve bacteriological weapons of the United States," and that the offensive and defensive branches were "in no way related." But in reality, the separation of the offensive and defensive areas was less complete. Crozier told Turner and Fenz that some defensive projects were done in the high security area, while offensive research was also done "outside the fence." Researchers in both programs exchanged technical information and coordinated research.[65](#)

However, the letter from Turner and Fenz was not published in the *Review* because the editor felt that "very few, if any, *Review* readers have sufficient information to be able to discuss the question intelligently." Turner then wrote to Theodore Carcich, vice-president of the General Conference, expressing concern that the National Service Organization defended the church position on the basis that joining Project Whitecoat was an individual decision; in fact, Turner said, the church wouldn't allow opposing viewpoints to be heard.[66](#)

Even unclassified Whitecoat research was not above suspicion. Dr. Matthew Meselson, microbiologist at Harvard University and consultant to the Arms Control and Disarmament Agency in the area of chemical and biological warfare, examined the published documents and stated that about 90 percent of the articles represented research for offensive purposes.[67](#)

Dr. Alvin Kwiram, then chemistry professor at Harvard University, also questioned the purpose of Whitecoat research. He examined several published articles, showing how the research reported could be used offensively, and how difficult it is to separate offensive from defensive studies. Kwiram concluded that, in actual practice, the best defense against germ warfare agents is a gas mask, as stated in the July 1969 United Nations report on chemical and biological warfare. Most of the diseases likely to be used would be viral, without a known cure.[68](#) Regardless of the precautions taken, the results of chemical or biological warfare would be unpredictable. In Kwiram's words,

It could be a disaster of unparalleled proportions, which every sane person should do everything in his power to work against. Again it is particularly important that the Adventist Church as a church not be found working in close collaboration with the military.[69](#)

Part of the problem was the question of whether or not the military could be trusted to tell the truth about its programs. In March 1968, for example, 6,400 sheep in Skull Valley, Utah, died when a cloud of nerve gas drifted 45 miles from the Army's Dugway Proving Grounds. The Army initially denied responsibility.[70](#)

In other cases, the Army conducted secret germ-warfare tests over populated areas, assuming the simulants used were totally safe. Between 1949 and 1969, various types of bacteria were released over 239 populated areas. No monitoring of public health took place during or after the experiments, and Army officials denied that increased health problems in the areas had anything to do with government tests.<sup>71</sup>

The Army's questionable record of honesty also brought up the issue of the health risks involved in Project Whitecoat. Some participants felt that the Army gave the misleading impression that the risk was minimal or non-existent.<sup>72</sup> Others said that although the recruiters were straightforward, officers intimidated the newly enlisted men, preventing them from asking many questions about the program.<sup>73</sup>

Some Adventists believed that it was noble to risk one's life for the sake of medical science but others felt that one's body should be treated as the temple of God, and that knowingly taking in disease-producing agents was not only dangerous but wrong. As one concerned Adventist wrote to the General Conference president, "We believe that by maintaining good health we are helping to maintain dear channels of communion with God, and yet these boys are being encouraged to join Operation Whitecoat which demands that one expose himself to man-made diseases."<sup>74</sup>

Clark Smith acknowledged the risks:

Though no human subject is ever knowingly exposed to an infectious disease-producing agent unless it is known that the vaccine, drug, or method of treatment under study is adequate to effect a cure or that the disease is self-limiting, nevertheless it requires courage of a high type to accept willingly such disease-producing agents into one's body.<sup>75</sup>

Col. Crozier, who took almost all of the vaccines himself before allowing them to be tested on his men, said, "Our boys are soldiers and they're darn good soldiers. They know that the only promise I make is if they come here, they'll get sick."<sup>76</sup> On recruiting trips, Crozier met with prospective volunteers to answer questions, and one of the most frequent concerns was whether or not there would be any aftereffects. "Of course, we can't give them a definite answer on that question," he said, "because if we knew the results of what we are doing, we wouldn't need them as volunteers."<sup>77</sup>

Ultimately, any vaccine or treatment developed must be tested on humans. The Fort Detrick protocol, if followed, provided reasonable safety precautions. Even so, it would be unusual if none of the 2,200 Adventist participants had any long-term problems.

One early Whitecoat member said that although he had had some health problems after participating in Q-fever experiments, nothing could be directly linked to his time at Fort Detrick. He was unable to receive Veterans Administration benefits because his records had been sealed.<sup>78</sup> Another volunteer, who was exposed to Q-fever and observed for several weeks before being treated, experienced severe pain and stated that he would not have subjected himself to the organisms if he had known how severe the symptoms

would be. The experience was frightening because he had no way of knowing at the time if the effects would be permanent.<sup>79</sup>

A later participant said that there could be more health problems than were reported, because Project Whitecoat volunteers had to sign a release form before leaving the service, stating that they would not hold the Army responsible for any medical complications that might arise later.<sup>80</sup> He explained that the risk involved was not only from diseases given intentionally, but from accidents in the lab. Those volunteers dealing with animal research, for example, had more opportunity for contact with dangerous microorganisms. Sometimes, patients would arrive on Ward 200 from behind the "hot" offensive area, and no one knew what they had been exposed to—often a virus or chemical without a known antidote.<sup>81</sup> Both intentional and accidental infections resulted in unexpected medical problems that were never reported.

In 1966, Fort Detrick's Public Information Office reported that since 1950 there had been 292 accidental infections which resulted in illness, and three deaths. A 1965 study by Fort Detrick's safety office, however, recorded 3,330 laboratory accidents between 1954 and 1962, one-sixth of which resulted in infections serious enough to make employees too ill to work. The study reported 9.06 laboratory infections per million man-hours of labor during those years, considerably higher than the National Institutes of Health, which ranked second with 3.41. New laboratories and improved equipment lowered accidental infection rates substantially, from 11.31 accidents per million man-hours in 1959 to 3.16 in 1962.<sup>82</sup>

Public Health Service officials agreed, on the basis of obligations to national security, not to announce infection cases unless an "epidemic hazard" existed. Doctors did not report some diseases, such as pneumonic plague, because the Army did not want to alarm anyone.<sup>83</sup>

Military officials believed that Fort Detrick's excellent hospital facilities and first-rate physicians were qualified to handle any medical emergencies that might arise. And this may have been true. If the Army followed all of its published safety regulations, the risk involved in Project Whitecoat research was probably reasonably low—at least when compared to the dangers of service in Vietnam. Also, the experiments may not have been as sinister as Project Whitecoat's detractors made them out to be.

### **Lessons to Be Learned**

In light of Seventh-day Adventist views on the separation of church and state, perhaps church officials should have been more cautious in their patriotism. The project seemed to present the denomination as an "American" church, willing to cooperate with anything unless the commandments were directly broken. This position failed to take into account the potential results of individual actions. Emphasizing the value of individual thinking would have discouraged the blind acceptance of church positions on both Project Whitecoat and the draft status. Such an attitude on the part of the General Conference officials would have led to a more objective presentation of Project Whitecoat, and an

earlier change in the church position on the draft status—allowing for full support of any decision based on honest conviction.

Although both the church and the Army may have been completely honest and sincere throughout the relationship, the General Conference praise of Project Whitecoat was probably a bit excessive. Denominational leaders should have been more willing to acknowledge the possibility of error: either that church officials in the 1950s may have been too hasty in their initial approval of the project, or that the nature of this important military program might have changed after it began.

Denominational leaders can be praised for trying to find Adventist draftees an acceptable means of avoiding both combat duty and Sabbath conflicts. However, if church officials had investigated the project more thoroughly in the beginning, they would have admitted that there were moral and philosophical gray areas involved—such as the health risks and possible offensive uses of research results. These ethical issues could then have been discussed publicly. The Seventh-day Adventist Church could have kept its reputation clear by allowing all prospective Whitecoat volunteers to hear both sides of the argument and by supporting those volunteers neither more nor less than those who served as medics or went into regular combat duty.

### Notes and References

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8. Booton Herndon, *The Unlikeliest Hero* (Mountain View, Calif.: Pacific Press Publ. Assn., 1967), p. 194.
9. Theodore R. Flaiz to George E. Armstrong, October 19, 1954, Whitecoat File, GCA.
10. Clark Smith to Kenji Soneda, May 21, 1971, Whitecoat File, GCA.
11. Henning Guldhammer, interview by the author, February 19, 1991. Guldhammer was a Project Whitecoat volunteer from 1967 to 1968.
12. V. B., "Operation Whitecoat," September 14, 1969. This poem was most likely written by Vinson Bushnell.
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37. Clark Smith, "Adventist Medics in America Volunteer to Serve Humanity by Assisting in Disease Research in Project Whitecoat," *Review and Herald* (March 20, 1969), p. 20.
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40. Richard Miller, interview with the author, May 21, 1991. Miller was a Project Whitecoat volunteer from 1955 to 1956.
41. The NBC broadcast was "First Tuesday," on February 4, 1969; the CBS program was part of "60 Minutes," on July 8, 1969.
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62. Martin Turner and Emanuel Fenz to Editor, *Review and Herald* (December 16, 1969), Whitecoat File, GCA.
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Technocrat scientists around the world are using CRISPR technology in top-secret labs to develop doomsday-type biological warfare weapons. The Wuhan Institute of Virology is such a center, and the most likely source of the coronavirus outbreak. He believes the virus is potentially lethal and an offensive biological warfare weapon or dual-use biowarfare weapons agent genetically modified with gain of function properties, which is why the Chinese government originally tried to cover it up and is now taking drastic measures to contain it. The Wuhan BSL-4 lab is also a specially designated World Health Organization (WHO) research lab and Dr. Boyle contends that the WHO knows full well what is occurring. Entomological warfare (EW) is a type of biological warfare that uses insects to interrupt supply lines by damaging crops, or direct harm to enemy combatants and civilian populations. There have been several programs which have attempted to institute this methodology; however, there has been limited application of entomological warfare against military or civilian targets, Japan being the only state known to have verifiably implemented the method against another state, namely the Chinese during World War II. Entomological warfare is a type of biological warfare that uses insects to transmit diseases. The Pentagon has allegedly performed such entomological tests in Georgia and Russia. Biting Flies in Georgia. According to a partially declassified 1981 US Army report, American bio warfare scientists carried out a number of experiments on insects. These operations were part of US Entomological Warfare under the Program for Biological Weapons of the US. The Pentagon: How to Kill 625,000 People For Just \$0.29 Cost Per Death. A US Army report in 1981 compared two scenarios - 16 simultaneous attacks on a city by A. Aegypti mosquitoes, infected with Yellow Fever, and Tularemia aerosol attack, and assessed their effectiveness in terms of cost and casualties.