# The Legacy of the "Yellow Berets":

The Vietnam War, the Doctor Draft, and the NIH Associate Training Program

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Victoria A. Harden, Ph.D. Historian, National Institutes of Health Building 31 Room 5B38 Bethesda, MD 20892-2092 301-496-6610 (voice) 301-402-1434 (fax) victoria.harden@nih.gov (email) When analyzing the lessons of the Vietnam War, government officials, historians, and members of the public tend to focus on the war's effect on U.S. foreign policy and overlook its influence on many other aspects of American life. The actions of the American government in Vietnam between the years of 1965 and 1973 greatly influenced U.S. domestic affairs, including the scope and leadership of biomedical research sponsored by federal funding. This paper will examine how the Vietnam War affected one program conducted by the National Institutes of Health, the NIH Associate Training Program. It will trace the program's history, detail how the war in Vietnam influenced the program's size, popularity and gender composition, and discuss the program's impact on medical research at academic centers throughout the nation as the physicians who participated in it--who called themselves colloquially the "yellow berets"--came to hold senior positions in those institutions.

#### U.S. Involvement in Vietnam

The roots of United States involvement in the Vietnam conflict may be traced as far back as 1945. The war originated as an attempt by the Vietnamese to rid their country of French colonial domination. From 1945 to 1950, the U.S. provided indirect financial support to Vietnam by funneling money to the French through the Marshall Plan. Between 1950 and 1954, Presidents Truman and Eisenhower provided direct financial aid to the French effort in Vietnam, and in 1954, after the Geneva Conference ended French participation in the war, the U.S. became the principal supporter of the Saigon regime in South Vietnam in its conflict with the leadership of North Vietnam over political control of the country. The evolving geopolitical climate after World War II, the domestic politics of the Great Society, and international and domestic

economics all played a role in America's increasing involvement in Southeast Asia and in President Lyndon Johnson's decision to send U.S. ground troops into Vietnam.<sup>1</sup>

### The National Institutes of Health and U.S. Biomedical Research in the 1960s

Federal support for the war in Vietnam was not the only increasing U.S. commitment between the years 1947 and 1963. Federal funding for biomedical research increased at an average annual rate of approximately 26 percent during that period.<sup>2</sup> The National Institutes of Health (NIH), the principal recipient of this largesse, is the U.S. government's largest agency for the support of biomedical research. The NIH is an agency of the Department of Health and Human Services and a member of the Public Health Service group of agencies, which also includes the Food and Drug Administration (FDA) the Indian Health Service, and the Centers for Disease Control and Prevention (CDC). When American troops arrived in Vietnam in 1965, the NIH intramural and extramural programs accounted for two thirds of total Federal expenditures in the biomedical and health related research fields as well as for three fourths of sponsored research in U.S. medical schools.<sup>3</sup> An article in the August 1965 edition of <u>Public Health Reports</u> stated, "NIH programs, procedures, and problems set the tone for all medical research."

A generous budget for medical research was consistent with other initiatives in President Johnson's broad domestic reform agenda known as the "Great Society." In 1965, Johnson signed bills creating Medicare, a system of health insurance for the elderly under the Social Security program, and Medicaid, a similar insurance program for indigent citizens. On 1 March 1966, in a message on domestic health and education, Johnson also confirmed his commitment to the medical establishment. "A nation's greatness is measured by its concern for

the health and welfare of its people. We must: strengthen our system of healthcare, train needed health workers, increase our research efforts, take additional steps to meet special health problems."

Physicians were needed to achieve these domestic goals but also to care for U.S. troops in Vietnam. Since the 1950s, a "doctor draft" had channeled physicians into two-year obligatory service in the Army, the Navy, the Air Force or the Public Health Service. For physicians interested in research rather than in clinical practice, two programs offered possibilities for an alternative path to satisfy their military obligation. The first had been established during the Korean War by Frank Berry, the Assistant Secretary of Defense, Health and Medical. The "Berry Plan," as it became known, allowed many doctors to defer their military service for a specified period of time. During their senior year of medical school, physicians could indicate a preference for one of three options: The first option allowed a doctor to join the military service of choice immediately after internship. The second option allowed a physician to take one year of residency after internship, then discharge his military obligation, and subsequently return to a residency. The final option allowed a doctor to complete residency training in a specialty of his choice before fulfilling his military obligation. An individual based his choice on his own assessment of the future with respect to the need for military physicians and on personal considerations. Stating one's preference, however, brought no guarantee that it would be honored. Assignments were given at random, and many physicians who sought deferment for residency training were instead slated to fulfill their Selective Service obligation immediately following their internship.8

Service in the uniformed Commissioned Corps of the Public Health Service (PHS) provided a second means to discharge a physician's military obligation, whether entered into as one option under the Berry Plan or as an alternative to it. A physician had to apply to become a Commissioned Officer in the PHS, and only a small percentage of those who applied were admitted. Commissioned Officers were assigned to duty throughout the country as well as overseas. Within the United States, major PHS stations included the Public Health Service Headquarters, PHS Hospitals in major cities, Indian Health Service Hospitals, the National Center for Urban and Industrial Health, the National Communicable Disease Center (the original "CDC"), the Arctic Health Research Center, and, most notably, the Associate Training Program at NIH. 11

## **The NIH Associate Training Program**

The NIH Associate Training Program, which has continued to the present, includes Clinical, Research, and Staff Associates, referred to universally by their initials, CA, RA, and SA. Today, information concerning newly arriving Associates can be obtained quite readily via a computer database at the NIH Office of Education. During the 1960s and 1970s, however, available technology did not permit this type of record keeping, hence no complete list exists of the program's participants. Currently, one digitized catalogue of the participants in the NIH Associate Training Program has been assembled from the index cards submitted by applicants to the program.<sup>12</sup>

When it began in 1953, the program was comprised of approximately 15 physicians who served only as Clinical Associates.<sup>13</sup> The Clinical Associateship appointment allowed

physicians and dentists to participate in clinical and laboratory research in the Clinical Center that included primary patient care responsibilities. To be eligible, a physician had to have completed two to three years of postgraduate medical or dental training. In the late 1950s, the program was expanded to include Research Associates. <sup>14</sup> Physicians and dentists who were appointed as Research Associates were trained to conduct laboratory research that did not involve patients. In the early 1960s, as the NIH expanded, Staff Associateships were also created to train physicians to become scientist-administrators. <sup>15</sup> In all three programs, each Associate was assigned a Senior Staff Investigator as a mentor. The type of research that a trainee conducted varied by laboratory and institute. Additionally, the levels of research responsibility and latitude given to a trainee depended upon his previous research experience as well as his interests and initiative. <sup>16</sup>

Although the design of all three Associateships was similar, they functioned differently. Dr. Henry Metzger, Scientific Director of the Intramural Research Program for the National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMD) at the NIH, came to the NIH as a Research Associate in the NIAMD in July of 1959. According to Dr. Metzger the Research Associate program:

was a much smaller program. I won't necessarily say select, although I do think some people felt that way. . . . . [E]ach of the Institutes, I think, had only three or four Research Associates. Unlike the Clinical Associates, when one was chosen [as an RA], one was not chosen for a particular laboratory. One was chosen by the scientific director and then after one came here, one decided which laboratory one would be working in by going around, visiting different laboratories, speaking with people, and finding out where there

was a mutual interest. Additionally, there was a didactic program where the Research Associates were given abbreviated courses in physical chemistry, organic chemistry, a variety of statistics, and so on. At that time it was not as common as it is now for physicians to have had a fairly rigorous scientific training prior to medical school.<sup>17</sup>

The NIH Clinical Associate Program had a broader focus. According to an article in the April 1965 edition of the Public Health Reports, it was singular in its approach to clinical investigation. The article described an "unusual opportunity for clinical investigation" that the ward activities offered through the "proximity to the patient of collaborating scientists from so many biological disciplines." Dr. Anthony Fauci, the Chief of the Laboratory of Immunoregulation and the Director of the National Institute of Allergy and Infectious Diseases (NIAID), was a Clinical Associate in the Laboratory of Clinical Investigation (LCI) of the NIAID from 1968 to 1970. According to Dr. Fauci: "The Clinical Associate Program gives you a very interesting perspective on the relationship between disease and the basic science that you have to study to be able to approach disease. I was able to see how clinical research was done, not only done, but also done correctly, at a very early stage in my career. Also the link, as we used to say, between 'the bed and the bench--you see something at the bedside, you bring it back and ask the question at the bench or you make a discovery at the bench and you go back and apply it to the bedside--was really what the Clinical Associate Program was all about."

The Staff Associate Program involved review and administration of research grants, as well as design of research programs that would be carried out by investigators at universities and research foundations. Dr. Harvey G. Klein, Chief of the Department of Transfusion Medicine, NIH Clinical Center, was a Staff Associate in the National Heart, Lung, and Blood Institute

(NHLBI) from 1973 to 1975. He stated, "While Staff Associates had opportunities to participate in research in the laboratory and at the bedside, the singular aspect of this program was its opportunity to learn first hand about the 'nuts and bolts' of research administration and to help design and run internal research programs in leukemia, hypertension, sickle cell disease and transfusion transmitted hepatitis."<sup>20</sup>

The NIH Associate Training Program was initially organized on an ad hoc basis. Dr. Joseph Edward Rall, former Deputy Director of Intramural Research at the NIH, helped establish the program. According to Dr. Rall, the earliest Associates were recruited by the "quintessential old boys network." They did not fill out applications. They were hand picked primarily from medical schools on the east coast because those institutions were considered 'breeding grounds' for research. By 1955, however, the founders of the program decided to "open it up and make it a competitive thing." From that time forward, to be considered for any of the Associate appointments, a physician had to submit an application two years in advance. Aspiring Associates usually applied during their senior years in medical or dental school.<sup>22</sup>

As the national commitment in Vietnam deepened, the number of Associates who came to the NIH increased (Figure 1). For example, in 1960, the year in which the National Liberation Front or the Vietcong was established, the Associate Program consisted of just 68 people. On 7 August 1964, Congress approved the Gulf of Tonkin Resolution, which gave the president the authority to take military action in Vietnam without Congressional approval. In 1965, 153 physicians reported to the NIH as Associates to fulfill their military service requirement. Parallel to the arrival of the first U.S. ground troops in Saigon in March of 1965, the number of participants in the program sharply increased. In 1966, there were 178 Associates, by 1970 there

were 206, and in 1973, the year that Henry Kissinger negotiated a peace settlement in Paris, ending the American combat role in the war, the program was at its peak with 229 Associates.<sup>23</sup>

As more physicians sought to discharge their military service obligations through the program, the selection process became extremely competitive. A news release from the NIH Office of Research Information in July 1963 reported that on 1 July, 1963, 53 physicians selected from 1,464 applicants, reported for duty as Clinical Associates. Additionally, the largest numbers of Associates from any one university were graduates of Harvard Medical School with graduates of Columbia School of Medicine as a close second.<sup>24</sup> During the Vietnam years, graduates of Eastern medical schools dominated the program despite earlier efforts to expand the number of schools represented. Between 1963 and 1975, the percentage of Harvard Medical School alumni who participated in the program ranged from 12 percent to 20.2 percent. In contrast, the percentage of graduates from the University of Michigan Medical School who received Associateship appointments between 1963 and 1975 ranged from 0.5 percent to 3.3 percent. Northwestern Medical School showed almost identical representation, (0.5 percent to 3 percent), and the percentage of University of California San Francisco alumni during those years ranged from 0.4 percent to 2 percent.<sup>25</sup> In 1965, 9.2 percent of the incoming Associates completed their internship at the Johns Hopkins University Hospital, 7.8 percent at Massachusetts General Hospital, 6.5 percent at Duke University Hospital, 4.6 percent at Bellevue Hospital in New York, 4 percent at the Peter Bent Brigham Hospital, 3.9 percent at Boston City Hospital, and 3.3 percent at Bronx Municipal Hospital. Only 1.3 percent completed their internship at the University of Michigan Hospital, 1.3 percent at the University of Minnesota Hospital and there

were no representatives from the either University of California San Francisco or Los Angeles Hospitals.<sup>26</sup>

Dr. Harry Keiser, former Clinical Director of the NHLBI, was a Clinical Associate in the Heart Institute from 1960 to 1962. He recalled:

I was only the second physician from west of the Appalachians to be accepted as a Clinical Associate in the Heart Institute. Up to that time, the Clinical Associates Program here at the NIH was mainly for the people of the 'Eastern Establishment.' Walter Bauer at the Mass General [Massachusetts General Hospital] and the people at Columbia, Cornell, Johns Hopkins and Duke, basically had unwritten rotation plans that they could set up. Walter Bauer would send several fellows down here in rotation for the two years, and it was automatic. I was only the second from the west of the Appalachians, and the first was Dick Crout. I have to say during those first couple of years, as a Midwesterner, I kind of felt I was being looked down upon. I had been to three different centers for my training and I could stand up to those who had been trained in the east. They were not necessarily any better.<sup>27</sup>

Whether the domination of the program by Eastern medical schools was truly indicative of differences in the ability of graduates is impossible to determine. From the point of view of NIH administrators at the time, however, they believed that their challenge was to identify the most promising potential investigators from the group of highly qualified applicants. Dr. Donald

S. Fredrickson, former director of the NIH, and one of the first Clinical Associates in the Heart Institute in 1953, helped determine who should be admitted into the program in the Heart Institute during the 1960s and 1970s. Commenting on the competitiveness and the process of choosing new Associates, he stated:

The best, the absolute cream, the "Tiffanys," all applied. Each Institute would do their damnedest to get what they considered the best. In 1961, when I became Clinical Director of the Heart Institute, Dr. Robert Berliner asked me to help him pick the Clinical Associates. We would sit down and go through these applications and narrow them down to about 200. We kept trying to refine the applications, to get people to answer questions and to write something. It was extremely difficult because all we really had was the scholastic record of most people. Very few had done any research. The art of picking, out of a whole group of qualified people, those who might become successful scientists was extremely difficult and still is today. The scholastic record usually meant a lot, and if somebody had shown inventiveness and had really gone into the lab for a year or two. But we still had to gamble and bet on who was going to be good. The applicants to this program were the cream of the crop and I used to tell Berliner that if we were applying for the program now, we would never make it with our write-ups. It was really just like sitting in Tiffanys and sorting out from all of the stones what would be the highest carat. We would have to pick them with a certain amount of variety because our programs needed people of diverse interests. The main objective was getting people who would use this environment to become scientists.<sup>28</sup>

From the point of view of the Associates themselves, the prospect of two years obligatory service in the armed forces was a key factor in their decisions to apply to the Associate Program.

Dr. Harry R. Kimball, who served as a Clinical Associate in the LCI of the NIAID from 1964 to 1967, and who is now the president of the American Board of Internal Medicine in Philadelphia, Pennsylvania, recalled:

We all knew we were going to serve in the military one way or the other unless we were 4F (deferment for medical reasons). 4F deferments for doctors were really difficult to obtain. You had to be really disabled to do that and so it was just a matter of trying to arrange the best possible experience during your military time. The choices were the Medical Corps, one of the standard services, or the Public Health Service. Within the Public Health Service the two most prized I believe, were, first, the NIH and second, the CDC. If you had an interest in infectious disease the CDC made sense because of its focus. Yes indeed, the fact that there was a doctor draft I imagine made the NIH the premiere place that trainees were anxious to catch on to. I had no interest in going to

Vietnam and I was interested in research and I was interested in furthering my career. I could certainly do that better at the NIH than I could as a general medical officer in the service.<sup>29</sup>

### Dr. Fauci echoed Dr. Kimball's assessment:

I left Cornell and went into my internship and residency in 1966. That was at the exponential phase of the Vietnam War, and every single physician went into military service. I can remember very clearly when we gathered in the auditorium at Cornell early in our fourth year of medical school. Unlike today, we had only two women in the class and seventy-nine men. The recruiter from the Armed Forces came there and said, "Believe it or not, when you graduate from medical school at the end of the year, except for the two women, everyone in this room is going to be either in the Army, the Air Force, the Navy or the Public Health Service. So you are going to have to take your choice. Sign up and give your preferences." I had heard about the NIH and the opportunity there. At the time the NIH was just blossoming and everyone who had any role in academic medicine spent some time at NIH. So I put down PHS as my first choice and then the Navy. Essentially, I came down to the NIH because I didn't have any choice. I was very lucky because I knew it was a phenomenal scientific opportunity.<sup>30</sup>

Even though the participants in the Associate Program were scarcely apologetic about their success in avoiding a tour of duty in Vietnam, they still referred to themselves sardonically as the "yellow berets" who were fulfilling their military obligation in the "Battle of Bethesda." The term "yellow berets" contrasted with the term "green berets," the Special Forces Operatives trained for some of the fiercest combat in Southeast Asia. Although no one is certain exactly when the phrase "yellow berets" originated, the term may have initially carried a pejorative connotation, although by the end of the war period most Associates used it as a badge of pride.

Did these physicians 'fear' Vietnam? Were the NIH Associates considered unpatriotic or boycotters of the national effort by other military personnel? Most of the former Associates interviewed rejected these assessments, but they also expressed understanding of why they might have been characterized in this light. Dr. Kimball recalled, "we were doing our service obligation in way which also was maximally enhancing our own careers. Why wouldn't they [military medical personnel] resent us? We were treated differently, we were treated very well."

Indeed, Associates enjoyed the luxury of thinking of themselves as scientists first, and Commissioned Officers only secondarily. Most Associates wore lab coats and never even owned uniforms. Their only substantial link to the military, therefore, was their rank. NIH Associates received a Navy rank, Lieutenant Commander, or LCDR. This entitled them to basic pay and tax-free rental and subsistence allowances. NIH Associates were also entitled to full PHS medical and dental care as well as access to military post exchange facilities.

A promotional pamphlet published by the Public Health Service in 1967 described the Corps of Commissioned Officers as a dedicated "mobile health force of professional manpower," whose mission was to "combat a broad array of health dangers and to resolve health problems on

many fronts." Although the Associates were hardly mobile, PHS physicians could be deployed at will by the Surgeon General, and those at the CDC were frequently sent around the U.S. and around the world. The brochure also compared the Commissioned Corps to the Armed Forces. "Like the Armed Forces, these officers serve wherever needed by the Nation-- at home or around the world." Some Clinical Associates were required to attend rounds at the Bethesda Naval Hospital located directly across the street from the NIH campus. For the most part, however, NIH Associates remained on campus and rarely consulted with other military medical personnel.

### The "Yellow Berets"

The NIH Associate Training Program, by providing its participants with the opportunity to work closely with physicians who were specialists in their prospective fields, helped to foster a research training environment at the NIH that was perceived as being unrivaled. The draft brought together a cadre of young, enthusiastic minds in such an environment of creativity and the NIH was able to provide them with unparalleled research resources. Dr. Kimball stated, "The draft forced everybody into one place at a world class research institution."

Dr. John Gallin, the Director of the Clinical Center and the Associate Director of Clinical Research at the NIH, was a Clinical Associate in the LCI of the NIAID from 1971 to 1974. He remarked:

As a Clinical Associate, I was very lucky because I was adopted by all the senior staff, and I felt totally free to interact with all of them. What I did was to get into a lot of projects utilizing what I thought were the talents of the various senior people and learning

from them. Also, because I had some background in the laboratory before I came to NIH, I was able to conceive and design my own projects. I was very fortunate in getting into a position of independence very early in my career.<sup>35</sup>

Dr. Alan Schechter, Chief of the Laboratory of Chemical Biology, National Institute of Diabetes and Digestive and Kidney Diseases, served as a Research Associate in the NIAMD from 1965 to 1967. He believed that participating in the NIH Associate Program helped to establish his career in academic medicine.

First of all, I had world class scientists as mentors. My first mentor won the Nobel Prize. You cannot do better, in terms of external recognition of one's ability, than the Nobel Prize. . . . Secondly, the colleagues coming though at the same time were all superb. . . . Thirdly, there was such a critical mass that whenever you had a question, there was always somebody down the hall or in the next building that you could go to. Fourthly, there were seminars and courses to take that rivaled anything at any university. . . . Finally, the people you were working with went out and pursued their careers so you had this whole cadre of people who you interacted with from the beginning. 36

The 1973 Paris Accords did not end the war, nor did they bring peace to Vietnam. They did allow U.S. troops to withdraw from Vietnam before the North Vietnamese occupied Saigon. It can be argued, therefore, that the real significance of the Paris treaty was that it ended the U.S.

military draft.<sup>37</sup> The termination of the draft affected the NIH Associate Program quite dramatically (Figure 1). In 1974 there were 191 Associates; by 1976 the number of participants totaled 108, a decrease of 43.7 percent. By 1980, the program consisted of just 76 physicians.<sup>38</sup> In fact, between 1965 and 1980, physician postdoctoral researchers at the NIH declined in both number and percent of all postdoctoral researchers.<sup>39</sup> An article published in Medical World News in February 1974 reported that the NIH was not able to fill its Associateship quota for that year, and that the PHS Commissioned Corps was only 80 percent of strength. The article went on to note that the applications for the two-year research appointments in medical and biological sciences at the National Institutes of Health "used to be snapped up by eager young interns" but "last year, with the ending of the 'doctor draft,' the NIH felt the pinch for the first time." <sup>40</sup>

# The Legacy of the Yellow Berets

Within the academic medicine community, there is a widespread conviction, based on anecdotal evidence, that the traning received by the "yellow berets" prepared them to become the most skilled researchers in the nation, and that in the decades since the Vietnam War they have trained a generation of investigators in rigorous research practices. How accurate is this conviction? The program clearly provided its graduates with significant career opportunities in research and in academic medicine. Dr. Kimball commented: "Former Clinical Associates are all over the place. Many of the people who are running things now had the CA program in their history. If you wanted to really get ahead in academic medicine, being a participant in the CA program was a very good thing to have on your CV." This proved to be the case for Research

and Staff Associates as well. According to Dr. Fredrickson, most medical school faculties have "alumni of the NIH Associate Program."

A survey of the professors of medicine at four of the top ten medical schools for 1998, as ranked by <u>U.S. News and World Report</u> revealed that 23.6 percent of the professors of medicine at Harvard Medical School participated in the NIH Associate Program. In addition, 20.3 percent of the chairmen of Harvard's clinical departments were graduates of the program. At Johns Hopkins University Medical School, 21 percent of the professors of medicine received training through the NIH Associate Program. Duke University Medical School also employed a large percentage of former Associates. Fifteen percent of the professors of medicine and 29 percent of the chiefs of medicine at Duke had participated in the program. Of the University of Michigan Medical School's 75 professors of medicine, 8 percent have the Associate Training Program in their background.<sup>43</sup>

The very success of the Associate Program for these men underscores the absence of women in the program.<sup>44</sup> It was an unspoken but widely acknowledged fact that women were not accepted into the program because they would take a position that might otherwise keep a promising young male scientist "out of harm's way" in Vietnam. Dr. Geraldine Schechter, a hematology researcher at the VA Hospital in Washington D.C., did not participate in the NIH Associate Training Program although her husband, Dr. Alan Schechter, did. When asked if she felt she was denied access to a remarkable research opportunity because of her gender Dr. Schechter responded:

There is always the question of whether I had the talent for it and I may not have had the talent for it. But, certainly, my background, the time that I spent in research training, was

really very limited. . . . I was not able to build a research group because I just did not have that capacity. Now, whether that was my training or my talent, I cannot say.

However, I have a very good reputation as a teacher and as a clinician, but I certainly do not have one as a researcher. I am not bitter about the fact that I did not have this research opportunity at the NIH. But, one can always wonder. 45

The short-term effect of the unofficial all-male policy was that few women had access to a highly regarded program that provided its participants with excellent mentors and an ongoing system of career support. The long-term effect was to penalize women in obtaining influential positions in academic medicine. <sup>46</sup> Dr. Geraldine Schechter observed:

Let me tell you, the reason that I have done very well in my career at the VA hospital in Washington D.C., is because my husband had connections with lots of different people across the country, who then knew me through him. I got positions in academic medicine, on boards and so on, in part because I knew people through him and I was a woman right at the time when everybody 'needed' a woman. But it was my link through him and the NIH, which got me a lot of the positions that I held in academic medicine. Gerry Schechter at the VA Hospital would not have had those opportunities. And, I am not only at the VA hospital, I am at George Washington University, but I still would not have had those opportunities without my husband's connections through the NIH.<sup>47</sup>

# **The Associate Program Today**

The Associate Program today hosts fewer young physicians and competition for appointments is much less than during the 1960s. Many reasons have been advanced for this. Dr. Saul Rosen, former Acting Director of the Clinical Center at the NIH, was a Clinical Associate

for two years. Using a medical analogy, Dr. Rosen described the NIH during the 1950s and 1960s, as "the primary cancer," of superb clinical research, and stated that "there were not too many other metastases that could compete with it." Therefore, doctors flocked to the NIH not only to avoid the draft but also because it was the place to be. However, in the 1990s, there are research institutions all over the country that are just as resourceful and as reputable as the NIH. Other alumni of the Associate Program voiced similar opinions. Dr. Alan Schechter commented that today "there are so many places that have funds to do research that the NIH no longer has a unique position. It was not quite unique in the 1950s, 1960s and 1970s. There were a few centers like the Harvard hospitals and some parts of Columbia, Hopkins, Chicago, Michigan and Seattle. . . . . So the NIH, which was larger than any of them, constituted a very significant fraction of what was being done in biomedical research at that time."

Many other physicians at the NIH argue that the decline in the program's popularity is merely a reflection of the fact that research is not as popular as it once was. Proponents of this view claim that this a fundamental problem, and is not particular to the NIH, but rather, is part of a general trend within academic medicine. Dr. Metzger stated, "Nowadays, people don't have that sort of calling, a research career is not as appealing as it was because of the uncertainties of funding, and the time to do the research." Dr. Rall agreed that physicians might be dissuaded from conducting research because of difficulties in obtaining funding. However, he also believes that research has become "deglamorized" as a result of the "Environmentalist Movement." "Part of the Environmentalist Movement was a rejection of hard, cold-blooded science," he stated, "People were supposed to be more caring and sympathetic. This permeated [our society]

gradually during the 1970s and 1980s, and research became deglamorized. This certainly contributed to less interest in coming here."<sup>51</sup>

Another reason given for the declining number of Associateship appointments is the redefinition of a career in academic medicine in the era of managed care. Twenty years ago, according to Dr. Fredrickson, to be the Chairman of a Department of Medicine was one of the most desired positions in medicine.<sup>52</sup> Today, in contrast, Dr. Fauci stated,

hardly anybody really wants to be a Chairman of Medicine in a major department. It turns out that you are essentially a slave to the managed care process. People who are interested in what was once a clear career path, are discovering that now that career path is not around anymore. Now people either go into very fundamental basic research, which is more of the Ph.D. approach, or they go out into family practice or clinical medicine. There has been a real weakening of the academic clinician. There is no market for them anymore.<sup>53</sup>

In addition, financial limitations are often cited as a reason that individuals no longer choose a career in medical research. Physicians may accumulate an extremely large debt during the course of their training because the length of time they spend preparing for their career is considerably longer than that of other professions. Dr. Keiser commented:

These young people now run up tremendous debt. That is, by the time they get out of medical school, these young people run about \$100,000 to as much as \$150,000 dollars in debt. Moreover, the loans are no longer interest free until you get a normal job. Very frequently, once you complete your formal residency training you have to start paying them off. These people will generally decide they will have to find a sub-specialty that is

going to pay them some money, and that means procedures. Then, they will find a residency program where they can very quickly learn those procedures and complete their training. Then they will often leave and avoid the research aspect entirely.<sup>54</sup>

#### Conclusion

The NIH Associate Program provided the postgraduate training for an entire generation of physicians in the 1960s and 1970s who are now in charge of laboratories and institutes at the NIH as well as professors at medical schools around the country. Would the program have been as successful had there not been a military service requirement for physicians? Both personal recollections and documentary evidence indicate that the number of applicants for postdoctoral positions at the NIH was certainly amplified by factors such as the "doctor draft." However, the program was regarded as a key training ground for academic medicine during the 1960s and 1970s, because it provided its participants with superior facilities for research training, and excellent mentors. In addition, the opportunity to study and train at the NIH introduced young physicians to an international network of scientists, many of whom were graduates of the program themselves. Therefore, although the popularity of the program may have been augmented by the draft, the distinction of the program was the result of the training it provided its participants.

The draft and the opportunity to do first class research at a world renowned institution resulted in the influx of trainees to the NIH who were regarded by many as "the best and the brightest" in the country. The "yellow berets" today harbor fond memories of their careershaping experiences. Ironically, their subsequent contributions to the training of the next

generation of investigators helped to dilute the importance of the NIH Associate Training Program by increasing the number of centers at which excellent training was available.

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- 8. Louis M. Rousselot (Deputy Assistant Secretary, Health and Medical) to Harvey G. Klein, 22 August 1969, copy available in file "Harvey G. Klein," NIH Historical Office biography files.
- 9. Like the Berry Plan in the armed services, the Commissioned Officer Residency Deferment Program (CORD) in the PHS allowed a physician to complete part or all of his specialty training before entering on duty. The CORD program did not provide legal protection from the military draft but in practice local draft boards deferred to the PHS as a courtesy. To apply for the CORD Program, potential participants needed to submit Form PHS-50, "Application for Appointment as a Commissioned Officer in the USPHS" in July of the year prior to which they were requesting deferment. Applications for deferment beginning July 1, 1970, had to be received in the Office of Personnel and Training no later than July 1, 1969. Many participants in the Associates program were admitted through the CORD program as well. U.S. Department of Health Education and Welfare. Residency Deferment for Physicians: Commissioned Officer Residency Deferment Program (CORD). DHHS Publ No. (PHS) 1029. Washington DC: Government

Printing Office; 1969.

- 10. U.S. Public Health Service. The Commissioned Officer in the U.S. Public Health Service. DHHS Publ. No. (PHS) O-266-794. Washington, DC: Government Printing Office, 1967.
- 11. U.S. Public Health Service. The Commissioned Officer in the U.S. Public Health Service. DHHS Publ. No. (PHS) O-266-794. Washington, DC: Government Printing Office, 1967.
- 12. These records were recently scanned onto a CD ROM database. The data on these cards include medical school attended, internship and residency institutions, whether or not individuals participated in the CORD program, which laboratory and Institute they were assigned to, and what type of Associateship (Clinical, Research or Staff) they received. Efforts to improve the completeness of these data from additional sources are underway. The statistics cited in this paper must therefore be viewed as preliminary. A copy of the CD ROM is available in the NIH Historical Office.
- 13. Melissa K. Klein, interview with Joseph Edward Rall, 30 June, 1998, National Institutes of Health, Bethesda, Maryland, copy in the NIH Historical Office.
- 14. Dr. Rall and Dr. Donald S. Fredrickson both noted that the creation of the RA position was

largely the result of the efforts of Dr. Christian B. Anfinsen, one of intramural NIH's Nobel Laureates. Rall Interview; 30 June, 1998; Melissa K. Klein interview with Donald S. Fredrickson, 8 July, 1998, National Library of Medicine, Bethesda, Maryland, copy in the NIH Historical Office.

- 15. Opportunities for Associateships. The New Physician. 1965 Apr; 45-6.
- 16. Appointment of Associateships for 1967 at the National Institutes of Health. Public Health Rep. 1965 Apr; 80(4):370-1.
- 17. Melissa K. Klein, interview with Henry Metzger, 10 June, 1998, National Institutes of Health, Bethesda, Maryland, copy in the NIH Historical Office.
- 18. Appointment of Associateships for 1967 at the National Institutes of Health. Public Health Rep. 1965 Apr; 80(4):370-1.
- 19. Melissa K. Klein, interview with Anthony S. Fauci, 16 July, 1998, National Institutes of Health, Bethesda, Maryland, copy in the NIH Historical Office.

- 20. Harvey G. Klein, personal communication, 11 August 1998.
- 21. Rall Interview, 30 June, 1998.
- 22. As part of the application process, a candidate was required to fill out a small index card and submit a photo. All Associates who entered the NIH as Commissioned Officers of the Public Health Service (PHS) were to be released from active duty obligation at the completion of their appointments, unless they requested to be transferred to other areas of the Public Health Service. U.S. Department of Health Education and Welfare. Residency Deferment for Physicians: Commissioned Officer Residency Deferment Program (CORD). DHHS Publ No. (PHS) 1029. Washington DC: Government Printing Office; 1969.
- 23. Data from NIH Associate Training Program database, copy available on CD ROM in NIH Historical Office; Moss GD. Vietnam: An American Ordeal. New Jersey: Prentice-Hall, 1994.
- 24. NIH Office of Research Information. News from NIH: New Class of 101 New Physicians Join NIH Research Training Programs. Bethesda, Maryland: NIH Office of Research Information; July 1963.
- 25. These percentages were obtained by dividing the number of graduates of a given school in a

given year, by the total number of participants in the Associate Program for that year. Data from the NIH Associate Training Program database, copy available on CD ROM in NIH Historical Office.

- 26. These percentages were obtained by sorting the participants who arrived at the NIH in 1965 by their internship hospital. The number of participants for a given hospital was then divided by the total number of participants in the Associate Program for 1965. Data from the NIH Associate Training Program database, copy available on CD ROM in NIH Historical Office.
- 27. Melissa K. Klein, interview with Harry Keiser, 1 July 1998, National Institutes of Health, Bethesda, Maryland, copy in the NIH Historical Office.
- 28. Fredrickson interview, 8 July 1998.
- 29. Kimball interview, 16 July, 1997.
- 30. Victoria A. Harden, interview with Anthony S. Fauci, 7 March, 1989, National Institutes of Health, Bethesda, Maryland, copy in the NIH Historical Office.

31. Kimball interview, 16 July 1997.
32. U.S. Public Health Service. The Commissioned Officer in the U.S. Public Health Service.
DHHS Publ. No. (PHS) O-266-794. Washington, DC: Government Printing Office, 1967.
33. U.S. Public Health Service. The Commissioned Officer in the U.S. Public Health Service.
DHHS Publ. No. (PHS) O-266-794. Washington, DC: Government Printing Office, 1967.
34. Kimball interview, 16 July 1997.
35. Victoria A. Harden and Dennis Rodrigues, interview with Dr. John I. Gallin, 23 June 1993,
National Institutes of Health, Bethesda, Maryland, copy in the NIH Historical Office.
36. Melissa K. Klein, interview with Dr. Alan Schechter and Dr. Geraldine Schechter, 7 July,
1998, Bethesda, Maryland, copy in the NIH Historical Office.
37. Moss GD. Vietnam: An American Ordeal. New Jersey: Prentice-Hall, 1994.

- 38. Data from the NIH Associate Training Program database. Copy available on CD ROM in NIH Historical Office.
- 39. Fredrickson DS. Biomedical Research in the 1980s. New Engl J Med 304(1981): 509-17.
- 40. The NIH Looks for Research Associates. Medical World News. 22 Feb. 1974.
- 41. Kimball interview, 16 July 1997.
- 42. Fredrickson interview, 8 July 1998.
- 43. Harvard Medical School is currently ranked first, Johns Hopkins University School of Medicine is ranked second, Duke University School of Medicine is ranked fourth, and the University of Michigan School of Medicine is ranked ninth by U.S. News and World Report. Figures based on a list of current faculty provided by Harvard University Medical School and the University of Michigan Medical School and on information available from the Internet at <a href="http://hmcnet.harvard.edu/clinical.html">http://hmcnet.harvard.edu/clinical.html</a>;
- <a href="http://infonet.welch...catalog/Departments/Medicine.html">http://infonet.welch...catalog/Departments/Medicine.html</a>;
- <a href="http://www2.mc.duke.edu/depts/som/facmed.html">http://www2.mc.duke.edu/depts/som/facmed.html</a> accessed 29 July 1998. The percentages were derived by searching the NIH Associate Training Program database for matching names,

and dividing the number of matches by the total number of professors of medicine at each of the listed schools.

<sup>44.</sup> There is no evidence of any female participants in the program until the late 70s. There is no way to determine from the NIH database the number of minority participants. However, former associates have stated that very few minorities participated in the program as well.

<sup>46.</sup> The lack of mentors has been cited as a primary barrier blocking the advancement of female physicians in academic medicine. See Matorin AA, Collins DM, Abdulla A, Ruiz P. Women's Advancement in Medicine and Academia: Barriers and Future Perspectives. Tex Med. 1997 Nov; 93(11):60-64; Schafer J. Despite Progress Women in Academic Medicine Find Glass Ceiling Still in Place. J Investig Med. 1997 Jun; 45(5):211-220; Tesch BJ, Wood HM, Helwig AL, Nattinger AB. Promotion of Women Physicians in Academic Medicine: Glass Ceiling or Sticky Floor. JAMA. 1995 Apr 5; 273(13):102.

<sup>&</sup>lt;sup>45.</sup> Schechter interview, 7 July, 1998.

<sup>&</sup>lt;sup>47.</sup> Schechter interview, 7 July, 1998.

