AGENDA

FOR

COUNCIL OF ACADEMIC SOCIETIES

DISCUSSION GROUPS
AND
BUSINESS MEETING

NOVEMBER 4-5, 1979

Washington Hilton Hotel
Washington, D.C.

ASSOCIATION OF AMERICAN MEDICAL COLLEGES
One Dupont Circle
Washington, D.C. 20036
AGENDA
COUNCIL OF ACADEMIC SOCIETIES
ANNUAL MEETING

November 4 - 5, 1979
Washington Hilton Hotel
Washington, D.C.

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   --Gerald L. Klerman, M.D.
   Administrator
   Alcohol, Drug Abuse, and Mental Health Administration

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MEETING SCHEDULE
COUNCIL OF ACADEMIC SOCIETIES
ANNUAL MEETING
November 4 - 5, 1979

Sunday, November 4

2:00-3:00 p.m.  Plenary Session  Caucus Room
3:00-5:00 p.m.  Group Discussions:
                Decline in Clinical Researchers  Grant Room
                Leader: Samuel O. Thier, M.D.
                Research Resource Strategies  Hamilton Room
                Leader: Carmine D. Clemente, Ph.D.
                Competency Testing  Independence Room
                Leader: Frank C. Wilson, Jr., M.D.
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                Specialty Distribution  Kalorama Room
                Leader: Theodore Cooper, M.D., Ph.D.
6:30 p.m.  Cocktails and Dinner  Market Inn Restaurant
           200 E Street, S.W.

Monday, November 5

1:30-5:00 p.m.  CAS Business Meeting  Jefferson West Room
5:00-6:00 p.m.  Speaker:
                Gerald L. Klerman, M.D.
                Administrator
                Alcohol, Drug Abuse, and Mental
                Health Administration
                "The AAMC - ADAMHA Interface"
DISCUSSION GROUP ON THE DECLINE IN CLINICAL RESEARCHERS

Report of the ad hoc Committee on Clinical Research Training

In October 1978, the AAMC Assembly adopted an OSR-initiated resolution urging the development of student research experiences. This expression of concern that research opportunities for medical students are inadequate and underutilized at many schools came at a time when it was becoming clearly evident that there has been and continues to be a marked decline in the numbers of medical students and post-doctoral trainees intent upon pursuing academic medical careers. Believing that this issue deserved highest priority, the Executive Council in June 1979 authorized the appointment of an ad hoc committee to analyze the causes underlying the decline in clinical research manpower and to propose a comprehensive course of action for the Association to rectify the problem.

The Committee was appointed in June and met on June 28, 1979 under the chairmanship of Dr. Thier. (The committee membership is shown below). The Committee's draft Report is presented at this time for discussion by the Administrative Boards and the Executive Council.

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INTRODUCTION

Clear evidence now at hand demonstrates that there has been and continues to be a marked decline in the numbers of medical students and postdoctoral physician trainees intent upon pursuing careers in investigative medicine. Discussions have recently become more intense concerning the implications of the diminished numbers of physicians entering clinical research and for the future of biomedical research, patient care, and medical education. At the 1979 annual meetings of three major clinical research societies—the American Federation for Clinical Research, Association of American Physicians, and the Society of University Surgeons—the Presidential Addresses focused on the need to seek solutions to the fact that the nation will soon be faced with an acute shortage of physician investigators. Six months earlier, in October 1978, the AAMC Assembly, adopting a resolution initiated by the Organization of Student Representatives, urged the development of student research experiences. This was based on concern that research opportunities for medical students are inadequate or underutilized at many medical schools. Believing that the issue of the need for more clinical investigators deserved highest priority, the Executive Council in June 1979, authorized the appointment of an ad hoc Committee on Clinical Research Training to analyze the causes of the decline in physician investigators, and to propose a comprehensive course of action to rectify the problem.

BACKGROUND

A. Trends in Physician Research Manpower

I. Medical student interest in clinical research is declining. A recent attitudinal study of medical students at Harvard showed that the percentage of graduating students assigning high priority to research dropped from 49% in 1963 to 2% in 1976 (1). Several AAMC studies have also indicated that while 39% of medical school graduates in 1960 stated that research would be a component of their careers, only 20% expressed the intent to devote any portion of their careers to research in 1979 (2). While not showing a decline in interest, studies at the University of Iowa indicated that students at that state medical school had low levels of interest in academic careers: 78% of students who entered between 1969 and 1972 did not plan to devote much time to research, only 8% expected to spend a year or more in research training, and only 2% of these same students reported plans to devote their careers to research and teaching.

II. The number of physicians training for careers in research is declining. The number of MDs in research training programs supported by the National Institutes of Health (NIH) has fallen from approximately 4,600 in 1971 to 1,790 in 1977 (5). These 1,790 trainees filled only about 70% of the 2,450 clinical training positions budgeted by NIH. It is clear that not only are there fewer research training opportunities for MD's, but also that physician interest in research training is declining. Further, while the total number of postdoctoral research fellows supported by NIH has remained relatively constant over the past decade, there has been a gradual increase of PhD trainees and a gradual decrease of MD trainees. Consequently, the proportion of MDs in the postdoctoral research training pool has fallen from 46% in 1968 to just over 20% in 1977. As yet another indicator, the percentage of Research Career Development Awards given to MDs has decreased from 43.5% to 24.1% over the past decade (5).
Similar trends are observed in programs supported by ADAMHA for research training in Psychiatry and the behavioral sciences. Apart from a brief moment in the history of NIMH, there has never been a specific targeted program to train post-residency psychiatrists in research. Consequently, the pool of clinical researchers is far smaller in proportion to the number of practicing psychiatrists than in other clinical disciplines. The recent report of the task panel on research of the President's Commission on Mental Health indicated that only 15 psychiatrists were in research training in 1977 (6).

III. The research activity of physicians is decreasing. In 1966, approximately 44% of competing research grant awards to new principal investigators were made to MDs. In 1978, MDs received only 23% of the total number of new and competing grant awards. During this same time period, the total number of competing research grants awarded to MDs has remained relatively stable, and the success rate of MDs who submit research grant proposals has remained constant. In contrast, awards made to PhD investigators have doubled as have the number of research grant applications submitted by PhDs. Thus, the numbers of MD investigators in the total research effort has relatively decreased. Further, although the ranks of medical school faculty have grown substantially over recent years, the number of MDs seeking research support from NIH has not kept pace. Data from the AMA show that the number of physicians reporting research as a primary activity has decreased from 15,441 in 1968, to 7,944 in 1975 (7), while at the same time the number of full-time faculty at U.S. medical schools has increased by 160%.

The implications of these trends for U.S. biomedical and behavioral research and for patient care will be discussed at length in a subsequent section.

B. Basic Considerations Relating to the Research Training of Physicians

The many ways in which the interest of undergraduate and graduate physicians in research careers is developed must be understood if effective steps are to be taken to ensure adequate numbers of clinical investigators. Some students develop an interest in and talent for research during premedical training. At least 200 such students develop strong enough biomedical research interests each year to apply for federal support leading to combined MD-PhD degrees (8). These highly motivated and outstanding students are very likely to enter academic and research careers upon completion of their training if they are given the proper experience and support.

More commonly, however, students receive their first critical exposure to research in the medical curriculum either by performing laboratory experiments in basic science courses or through more formal, short-term (3 to 12 month) research electives or fellowships. These are the students who at graduation may express an interest in careers in medical research and teaching. Whether they will enter such careers almost always depends on their postgraduate medical education experiences. If sufficient interest in research is stimulated in medical school, it is likely that a student may select a postgraduate residency training program that is academically oriented and that offers the continuing opportunity to develop research experience. Similarly, the undecided student may find in the residency the challenge and support which leads to a research career. A recent study confirms that the "research" orientation of the residency is the second most powerful determinant of a physician's entry into research and success in such a career (9). Thus, the research "climate" at the academic medical centers and the presence of role models for research careers is very important for students in both undergraduate and graduate medical education.
It is at the end of most residencies (or about mid-way in surgery and surgical specialty residencies) that the very difficult decision for a research career must be confirmed and sustained by the young physician. Having shown enough clinical ability to gain the confidence of clinical superiors, the young physician must then decide whether to enter practice with its larger financial and patient-care rewards or try to establish a mark in teaching and research. Resident physicians have had sufficient clinical training to assure them that they will succeed in clinical practice. In contrast the resident has generally had little or no research experience and thus cannot assess his or her potential for success in a research and teaching career. Also, in past years research careers were held in higher esteem by the public while more recent public sentiment favors careers in patient care. While clinical incomes have soared, research funding has become more uncertain, and the federal government, by establishing the payback provision, now requires a commitment to academic careers as a condition for awarding research training funds. Obviously, these factors combine to dissuade the interested but untried researcher from taking the fellowship that may provide the first solid research foundation for an academic career.

For those who do undertake a research fellowship, the location and nature of that experience has been shown to be the most powerful determinant of the trainee's research career outcome (9). If the fellowship is taken at an institution where there is a high level of research and scholarly activity the trainee is much more likely to go on to a successful academic career with academic tenure, productivity and grant success. There remain two final critical steps for those who successfully complete research training: gaining an academic faculty position and obtaining the assurance of early career support for the chosen research endeavor. If either of these fail to materialize, clinical practice remains an attractive and lucrative alternative.

As will be discussed in more detail below, the circumstances under which clinical research training is provided to graduate physicians in the United States varies depending on the discipline involved. Further, training for clinical specialty practice has been traditionally interwoven with training for research for most of those physicians who subsequently entered careers in research and teaching. This intermixed clinical and research training is changing under a variety of pressures (e.g., federal support for trainees, specialty board requirements). To an increasing degree, clinical specialties are being pressed to separate clinical training from the research training. A major pressure for this separation has been the federal decision to limit federal funding support to research training. This has created some tensions not only because clinical and research training have traditionally been intermixed but also because many clinical research activities can be conducted in patient care settings. A notable exception has been the Veterans Administration programs although pressures are now being brought to bear within the VA to restrict support for research training and clinical investigators.

The success of three decades of federal research training programs, especially for PhDs, and limited research grant funds have created a situation in which only those clinicians most rigorously trained in research can compete successfully for research support and advance the frontiers of science. Thus, it may be that the time has come to assure the development of solid, clinical research training programs of the highest possible caliber to assure that physicians are prepared for long and productive careers in clinical investigation.
DISCUSSION

A. Implications of the Trends in Clinical Research Manpower

If the trends described in the previous section continue, there will be serious consequences not only for biomedical research and medical education but also for patient care. The physician investigator possesses unique capabilities and perspectives that form the bridge between the research lab and the bedside. On one hand, the physician's knowledge of human disease is essential in focusing research ideas and maintaining the relevancy link between research and the treatment of patients. The MD possesses the clinical insight to transfer knowledge gained through research to the patient. Conversely, many research ideas are sparked by a physician encountering a particular patient care problem and transferring ideas about the problem back to the research laboratory. Without the physician investigator in the cross-over role, the separation between basic science and clinical science departments would be exacerbated; neither group will operate optimally in isolation from the other.

Teaching medical students is an equally important role of the physician investigator. By virtue of providing a link between science and patient care, the clinical researcher makes an important contribution to the educational and professional development of all medical students regardless of their specific career aspirations. The clinical investigator is uniquely able to demonstrate and stress the importance of the scientific basis of medical practice. In addition, the clinical researcher is an obviously important role model to students aspiring to a research career.

From the national perspective, the continuing search for new scientific knowledge to improve the nation's health depends on the constant influx of a cadre of bright and dedicated MD investigators.

It has been difficult to determine the precise number of clinical researchers needed to operate the nation's biomedical research programs and the mechanisms by which these researchers should be trained. The National Research Council of the National Academy of Sciences, charged since 1974 by Congress with determining the need for researchers in all fields including clinical research, has estimated that about 2,800 MD-postdoctoral research trainees and 700 MD-PhD predoctoral trainees should be supported by NIH each year (7). Complicating this assessment of need for and support of clinical research training is the fact that a significant but indeterminate number of clinical trainees receive some training for research careers with support from various additional sources: Veterans Administration, hospital funds, physician earnings, and private foundations (10). Such training is highly variable with respect to the rigor and duration of the research training provided. In many cases, it appears that training program directors involve trainees in mixed clinical and research experiences which do not provide the basic grounding needed to develop independent clinical investigators who can compete successfully for available research funds (10). Another factor complicating the decision of how many clinical researchers should be trained is the relatively short period of research productivity of MDs (as opposed to PhDs) both because their longer training programs delay their research careers and because they leave earlier for clinical or administrative activities. Therefore, the question of whether the appropriate number of clinical investigators, supported by all sources,
are currently being trained is not easily answered. However, the over-riding fact that federally-supported MD research trainees have decreased precipitously since 1975 and are now one-third to one-half below the NAS-NRC goals, indicates that the nation is attracting and training insufficient numbers of physician investigators. All of these factors make the determination of the precise numbers of clinical research trainees and their support programs difficult.

B. Probable Causes of the Trends

There appear to be numerous, interrelated causes for the current trends in clinical research manpower. No single factor, such as the vagaries of federal funding, should be examined in isolation because a one-dimensional approach to a problem of this magnitude would be simplistic and ineffective. Some causes are easily recognizable and can be supported by current data while others require considerable dissection and may be more subjective in nature; each must be addressed if the current trends are to be reversed. The approach to the causes and their solutions that follows will be organized along the continuum of medical education and practice.

Medical Students.

During medical school, the first critical career decisions are made that determine whether an individual may become a clinical investigator. If interest in research is stimulated and sufficiently nurtured in medical school, it is likely that a student will select postgraduate training that is academically oriented and offers the opportunity to continue the research experience. If a student's interest in investigation is not stimulated in medical school, it is less likely that the graduating student will seek such an experience during the postdoctoral training experience.

Other problems besetting present-day medical students are economic. Rising tuition and costs, especially in the private schools, lead to larger student debts than ever before and make it doubly important to consider the level of trainee stipends which will make research experiences attractive to medical students.

Students who accumulate a large debt burden through college and medical school will make career decisions within a framework that includes income potential. All of these factors combined with the uncertainties of federal funding of research, make a career in research less attractive economically. When the federal requirement for the research trainee to pay back, in time or money, for research training support is considered along with other economic disincentives, the likelihood of medical student commitment to a research career diminishes even further.

Though primary care and biomedical research should not be thought of as mutually exclusive types of careers, the rise in popularity of one may be related to declining interest in the other. Student career decisions appear to be heavily influenced by the national call for primary care physicians. Financial aid sources, especially at the state level, are increasingly linked to service in under-doctored areas. The curriculum in medical schools is beginning to reflect this emphasis on primary care medicine. Federal funding for generalist residency programs is on the rise and students cannot close their eyes to these incentives.
Additional factors cited by students as causes for the declining interest in an academic career include the lack of exposure to research through laboratory courses and informal interaction with faculty. In previous eras a student might become interested in research by repeating classical experiments in basic science or by casual laboratory interactions with faculty members. Today's medical school curricula, laboratory technology and the demands on faculty time are such that this type of faculty-student interaction is infrequent.

A recent AAMC survey (11) showed that research opportunities for medical students are highly variable (11). At least a few opportunities are available at most institutions but at a few schools the student demand for research experiences far exceeds available resources. In many cases students are unable to take advantage of research opportunities because of inadequate financial support, lack of laboratory facilities, or because of scheduling conflicts. The AAMC survey also found that counselling about research opportunities and careers is inadequate at most schools.

Special attention to the needs of minority medical students and faculty is required. American medical colleges would be assisted in their efforts to recruit and retain minority medical students if increased number of minority faculty members could be found. These faculty serve as important role-models for students, and their numbers should be increased by a special effort to recruit minority physicians into high quality research training programs (e.g. the Research Associate Program of the NIH Clinical Center). Such research training would make more certain early faculty appointment and the ability to compete for research funds.

Residents.

As previously noted, residency training is the time when an individual decides whether to commit an additional major block of time and effort to research training to prepare for a career as a clinical investigator. Residency programs vary in the amount of emphasis given or time allowed for research experience. Some residencies, including a number of the surgical specialties, routinely include from three months to one year of clinical research experience as an intrinsic part of the residency training program supported by the hospital. This research experience is given not so much in anticipation of producing clinical investigators, but because it is thought to be an important part in the training of a clinical specialist. Such exposure to research enables a clinician to interpret and keep up with advances in the specialty in the years ahead. The exposure is sufficient in some cases to encourage an individual to seek additional, in-depth research training beyond the usual clinical residency. It is this stimulation to obtain additional research experience which marks the commitment to a career in clinical investigation.

The pattern for including a research experience within a standard residency varies widely among specialties and even within the approved programs of individual specialties. For example, the minimum training requirement for consideration by the American Board of Surgery is four clinical years of training, but the Board encourages hospitals to offer programs of five years duration. A research experience is often included as the third or fourth year of a five year hospital-sponsored residency program with approval of the Residency Review Committee in Surgery. On the other hand, the American Boards of Pediatrics, Internal Medicine, and other primary specialties no longer consider research experience as a part of
their general training requirements. Since residency program structure is determined by board requirements those training programs that wish to encourage clinical investigation must usually find other sources of funding for the research experience outside the usual mechanisms for residency funding. In the past, this research experience was often incorporated into subspecialty fellowships, many of which were funded by federal training grants. In recent years, the debate about the need for more subspecialists has led to serious questions by federal and other funding agencies as to whether it is appropriate for public funds to be used for research training provided in connection with subspecialty training. These considerations led to a reduction in the funding of subspecialty fellowships which in turn reduced the number of opportunities for research training. To correct this trend psychiatry, perhaps pediatrics, internal medicine and other specialties should again acknowledge that opportunities for research experience are important during the general residency period and are appropriate for the education of many qualified specialists especially those who will go on to academic careers. The Boards and Residency Review Committees should adopt flexible policies to allow those physicians planning careers in research and teaching to count some early research time toward their primary Board requirements. A research component during the subspecialty training period is now permitted and should be continued.

Probable causes for the declining interest in an academic career at the residency level are similar to those experienced by medical students and have been discussed above. As residents make definitive career decisions, such disincentives as the payback provision and perceptions that the academic life is filled with funding uncertainties, much paperwork, and relatively low financial rewards, make the decision to try research difficult. Most residency schedules are inflexible and not conducive to the periodic renewal of research interests. This inflexibility together with the primary specialty board requirements previously mentioned affects the resident's inclination towards research. For a resident entering post-graduate training with an interest in research, it is at least three years before any significant laboratory experience is gained. For most residents, and especially for those with family obligations, a heavy debt burden, and pessimism about their academic future, a four-year waiting period may be the "coup-de-grace" to an initial interest in research.

Advanced Clinical Trainees. 1

The subtle disincentives that might cause medical students or residents to exclude an academic career from their career options become very tangible at the fellowship and advanced clinical trainee level. Negative attitudes conveyed by senior faculty about the problems associated with research as well as personal economic issues remain paramount on the long list of disincentives. Medical students and residents may have had some perception of the disincentives to research but physicians in advanced training see at close range the uncertainties related to funding; the continuing paperwork required to obtain grant support; the heavy workload to meet teaching, administrative, patient care, and research responsibilities;

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1 This term includes subspecialty trainees (residents and fellows) in surgical specialties and subspecialty fellows in the medical specialties.
and the knowledge that their colleagues in private practice are surpassing them in income. Added to these realities is the further fact that a six-month to one-year research experience hardly prepares an individual for a career as an independent investigator. The potential researcher must acquire an additional one to three years of research training to be assured of success as a clinical investigator.

When the potential researcher faces the decision of whether to commit an additional year or more to research training supported by federal funds, the payback provision poses an important disincentive. While it can be argued that the payback provision is not a strong disincentive to the trainee sure of his or her own research potential, it is certainly not an incentive to pursue research training to determine whether one is suited for such a career.

Junior Faculty.

The transition of the young physician from research training to faculty status requires special consideration. The local and national institutions supporting research training programs must accept responsibility for the placement of graduates of these programs in appropriate academic positions. Another problem at this stage is a lack of a smooth and orderly mechanism for a fully trained clinical investigator to identify and choose the most desirable opportunity among the nation's medical institutions to pursue a career as a junior faculty member. Finally, there is the need to nurture the neophyte faculty member, assuring research support and particularly protecting him or her from commitments of time or energy that conflict with the faculty member's desire and need to establish an independent research career.

A number of programs have recently been introduced by both the federal government and private foundations which recognize these problems. These five-year programs provide realistic salaries and require institutional commitment in terms of support and protection of the young faculty member's time for research. The programs are, however, limited in number. Although these clinical investigator award programs address the problem of junior faculty support in a positive way and should be expanded, they raise another problem. Most research training fellowships provide stipends in the range of $15,000 to $17,000 per annum. The clinical investigator awards, on the other hand, provide $25,000 per year thus creating two levels of support for what may be identical training experiences. However, the higher level is more realistic in view of the clinical income which could be earned. It has been suggested that the $25,000 level should be awarded for 3 to 5 years based upon the candidate's record of research ability and the institution's commitment. The ad hoc Committee is divided on this point.

It is during the first five or so years of faculty experience that many well trained clinical investigators are lost. Problems at this level include difficulties in obtaining funding for independent research, the paperwork and restrictions that continue to increase related to grant applications and compliance with a variety of regulations. The increasing demands of the medical centers for the faculty to commit more time and effort to individual clinical practice impacts severely on the junior faculty, and in many institutions a heavy part of the teaching load is placed on the junior faculty. Also, the negative attitudes of senior faculty about research and financial issues impact particularly upon the junior faculty at this point.
RECOMMENDATIONS

Since the etiologies of the declining interest in clinical research are varied and interrelated, a broad effort at several levels—the AAMC, the local institutions, state and federal governments, and private foundations and corporations—must be undertaken to solve the identifiable problems.

The two times along the continuum of medical education which appear to offer the most fruitful opportunities for change and attitude adjustment are medical school and the advanced trainee or research fellowship phase. In order to stimulate a stronger interest in clinical research, faculty need to provide positive and exciting research experiences during undergraduate medical education. Any interest sparked must then be carefully nurtured and encouraged since it is unrealistic to expect students to retain an interest in research when faced with a myriad of disincentives, competing attractions, and sacrifices. During the advanced clinical trainee period, research opportunities should be improved and fellows should be enabled to pursue research in a protected and supportive environment. Program directors at institutions whose goals include the education of clinical investigators must accept the responsibility for counselling, encouraging, and finding funding to support the additional research experience which will assure competitive research careers.

The recommendations which follow are grouped according to the various organizations and entities affecting the supply of clinical research manpower. Within each major category, recommendations are targeted at the chronological stages in the medical education continuum where changes and adjustments might be made.

ASSOCIATION OF AMERICAN MEDICAL COLLEGES

General:

1) The Association should document the decline in clinical research manpower and report the implications for medical education and health care if this trend continues. Position papers should be widely distributed to the academic medical community, to governmental agencies, and to the public. Further, the AAMC should highlight the issue of clinical research manpower in a positive and constructive way at national meetings and in its publications.

2) The AAMC should assume a liaision role with the public and private sectors to assure adequate research training support at all levels.

3) The AAMC should emphasize research training opportunities for minority medical students and residents as an adjunct to affirmative action programs.

Medical Students:

1) The AAMC should urge the LCME to examine student research programs in the accreditation process.
2) The AAMC should develop a publication describing sources of research support, both public and private, available to students. To support this publication the AAMC should augment its data on MD-PhD programs, research support for medical students, and other areas providing insight into the problems in clinical research.

3) The AAMC should develop a definition of what constitutes an appropriate research experience for students to provide guidance to institutions designing research programs.

Residents, Fellows and Advanced Clinical Trainees:

1) The AAMC should include in its publications data and sources of support for advanced research trainees.

2) The AAMC, recognizing the distinction between clinical subspecialty training and research training, should develop a definition of the essential features of research experiences for postdoctoral fellows to prepare them for productive research careers.

3) The AAMC should adopt a position on the economic differential for MD and PhD research trainees. It is clear that MD trainees and PhD trainees make decisions about research experiences and ultimate career goals within a different economic matrix, and there should be recognition of this fact in stipend levels, in application of the payback provision, etc.

4) The AAMC should obtain precise information about the payback provision--how it is viewed by NIH and ADAMHA and how it is being enforced--for distribution to the constituency.

Faculty:

1) The AAMC should gather data describing sources of research and career support, both public and private, for faculty.

2) The AAMC should encourage cooperation and communication between individual societies examining the issues of clinical research manpower. Professional societies representing clinical department chairman should particularly be encouraged to become involved with the issue.

MEDICAL SCHOOLS

Students:

1) Medical schools should design student research programs that provide students with stimulating research experiences.

2) Medical schools should develop advisory systems to inform students about careers in clinical research and about opportunities for research experiences while in school. Faculty should encourage bright and promising students with research interests.
3) Medical schools should examine their own capacity to expand MD-PhD programs, clinical scientist programs, etc. where these are consistent with institutional goals.

4) Those medical schools whose goals include education of future investigators should examine their curricula to ensure exposure to research whether through reintroduction of laboratory courses, summer or short-term fellowships, thesis requirements, or electives.

5) Medical school admission committees should identify for special encouragement after admission those students who have done productive research as undergraduates.

Residents, Fellows and Advanced Trainees:

1) Medical schools should encourage program directors to provide flexibility in residency schedules for trainees desiring research experience.

THE FEDERAL GOVERNMENT

Students:

1) The federal government should develop an additional program with reasonable stipend levels to support medical student research specifically. This program should not compete for funds with present research training programs.

2) The NIH and ADAMHA should change its policy against providing stipend support to medical students receiving academic credit for a research elective or fellowship.

3) The federal government should increase its support of the Medical Scientist Training Program since there are more qualified applicants than places for MD-PhD positions.

4) The NIH and ADAMHA should more widely publicize its intramural student elective program. Special emphasis should be given to minority medical students.

Residents, Fellows and Advanced Research Trainees:

1) The NIH and ADAMHA should establish a flexible policy with regard to stipend levels and not force institutions to reduce the number of research training positions to increase stipend support.

2) The government should modify or eliminate the payback provision for MD research trainees (as opposed to clinical trainees for which federal support is not and should not be available).
3) Veterans Administration support for research training should be maintained.

4) The advantages of research training in the NIH Intramural Program should be publicized more widely to minority students and physicians.

**Faculty:**

1) The federal government should consider structural changes (such as lengthening the grant period) in its research programs to reduce paperwork and improve grant conditions.

2) The federal government should provide stable and adequate funding for research resource programs such as the Clinical Research Centers Program and Biomedical Research Support Grant Program.

3) The federal government should increase its support for clinical research faculty through long-term support mechanism (e.g., RCDAs, and VA career investigators). The very successful VA career investigator program should be continued and expanded.

4) The federal government should examine its research training programs thoroughly to ascertain which have been most effective and productive.

**PRIVATE SECTOR**

1) Specialty certifying boards should examine whether some research training is appropriate and, if so, should grant credit for research training toward primary specialty board requirements.

2) Private foundations and corporations which depend upon physician investigators to carry out their activities and help them to achieve their goals should be made aware that there is a crisis in clinical research manpower. The private sector also depends heavily upon clinician investigators in some fields to advance the objectives of the corporations involved in medical and research related activities. These foundations and corporations should be encouraged to provide long-term support for physician research training and MD-generated clinical investigation at all levels. Creative approaches to solving the problems, a hallmark of foundation support in the past, is sorely needed.
BIBLIOGRAPHY


DISCUSSION GROUP ON RESEARCH RESOURCE STRATEGIES

The following is a list of issues for consideration suggested by Dr. Carmine Clemente, leader of the discussion group. Also provided for background information is an AAMC Staff Analysis of S.988—the Health Science Promotion Act of 1979.

Issues for Discussion:

A. How can fundamental research support be best protected in a public and governmental environment of increasing pressure for applied and targeted research and for congressionally-mandated programs for the control and prevention of specific diseases?

B. How can a restitution of funds to an "appropriate level" for investigator-initiated, independent research grants be justified and implemented? Should the correction in the perceived imbalance of funding for fundamental investigator research grants be proposed at the expense of applied and targeted research?

C. The Biomedical Research Support Grants (BRSG) are institutional grants used to support exploratory research projects and to help young faculty initiate their scientific careers. Have the faculty in medical schools perceived the benefits and appreciated the value of these grants? If these are considered valuable what are the best strategies to counteract the increasing pressures to terminate this flexible institutional support?

D. What is the status of the nation's laboratory facilities for fundamental research? If much of the large research equipment, bought during periods of better research support, is becoming antiquated and less useful, should the AAMC support the concept of the establishment of Institutional Equipment and Research Facilities Grants?

E. How can a stable federal commitment for fundamental research training best be achieved? What is the perceived nature of the supply of Ph.D. scientists for fundamental research in the various fields?

F. Is there any way that the CAS can help reorient attitudes within the federal government toward the support of fundamental research rather than its regulation? How has the increased politicization (disease of the month congressional approach) been detrimental to fundamental research? How has research regulation been detrimental to scientists?

F. Would it be fruitful for research scientists to turn to the public sector for significant support of fundamental research? How many societies have Public Information Committees and what is the nature of their activities? Is there any value in considering a coordinated effort among a group of societies to counteract the growing suspicion on the part of the public, relating to the benefit of fundamental research?
The major deficiency in S.988 is that, despite a pretentious title, it does little to promote the health sciences but instead focuses on issues of marginal importance. The bill proposes:

- to establish a President's Council on the Health Sciences. This would per force have to be a very large and complex apparatus, if it is to carry out the statutory mandate of annually preparing budgets and rolling five-year plans for Federally supported biomedical and behavioral research, for submission to the President, to the Secretary/DHEW, and to the Congress, and will thus replicate--needlessly in the Association's view--indispensable and long standing Executive Agency functions. The AAMC's counter-proposal is that the Council be renamed, that its functional scope be narrowed to an advisory one, and that it report directly and only to the Congress.

- to give the National Institutes of Health a statutory base, even though that Agency has operated remarkably effectively without one for almost half a century.

- to confer specific authorities on the Director, NIH, most of which require no statutory authorization, some of which (e.g., those related to the peer review system and to "innovate research proposals") seem undesirable and one of which is unclear as far as meaning or significance.

- to re-write statutory authorities for the component National Institutes of the NIH in more narrow and constricting terms than are presently laid down in Title IV of the Public Health Service Act, with little if any gain to either the Institutes or the scientific community. In specifying the missions of each Institute in these narrow terms, the proposed statements would diminish flexibility and increase the problems of program operators.

- to permit and encourage experimental approaches to reducing the paperwork burden associated with Federally supported biomedical research. The AAMC heartily endorses the objectives of this provision.

In his floor statement introducing the bill, Senator Kennedy described the great advances in biomedical research over the past several decades made possible by Federal support. Despite his eloquence, he understated the accomplishments. Biomedical science is a vibrant and exciting pursuit that has captured the imagination of a generation of students and young scholars. The nation's medical and graduate schools, its teaching hospitals, and its research institutes are alive with ideas and full of ferment. Tens of thousands of bright scientists, young and old, are engrossed in research on problems
of critical importance to the understanding and, thereafter, to the prevention and/or treatment of disease. Each year, at the springtime scientific meetings, the research community sits in awe as they listen to reports that show how research has extracted from nature ever more of her secrets.

"Out there," in the real world of research, progress is rapid and promise is high. This state of affairs can be attributed to an overwhelming degree to generous Federal support tendered, at least once, under reasonable terms to excellent institutions and to dedicated scientists, for research on projects deemed by scientific peers as worthy of support in terms of intrinsic quality and promise for alleviating national health problems. The role of formal "planning" and the niceties of the organization of the Federal science agencies have had little to do with the pace of progress. Only recently have heavy paperwork requirements become a burden.

The jaundiced views voiced with growing frequency in Washington relate principally to "accountability" and "responsibility in the stewardship of Federal funds." However, it should be noted: that the overwhelming majority of the criticisms of research performers reflect in reality technical disputes and differences in opinions on auditing and accounting methods; that the enterprise, with extremely rare exceptions, has been characterized by unimpeachable standards of honesty and integrity; that the government has reaped a rich return on its investment in biomedical research; and that the putative mis spending of Federal funds has almost invariably been to further research, not "to line the pockets" of investigators.

Biomedical science today, however, is in a crucial stage. Research funding has barely kept pace with inflation for the last decade, while investments in training funds have created a very large pool of capable young scientists. As a result, the NIH has in recent years been able to fund only 30-40 percent of approved grant applications. Each year, 10-12 percent of the pool of "principal investigators" are new, but in the relatively stable state in which research finds itself, an equivalent percent of the previous years' principal investigators drop out. Studies on the survival of cohorts of principal investigators "new" to the system in 1966 and 1968 showed that 50% had disappeared in five years. The loss is composed of scientists who were, for the most part, highly creative and productive, but who could not meet the extraordinarily high standards that prevail, especially in circumstances of severe fiscal stringency.

The attractiveness of any career diminishes sharply when the chances for advancement or even survival become small. There has been an alarming decline in the number of physicians seeking training in biomedical science over the last 3-5 years, a signal that this group has "read the tea leaves" and already "opted out," to pursue careers in medical practice. The failure to renew the pool of clinical investigators bodes ill for the future of medical science, at least. These are the scientists who built the bridges between advances in the pre-clinical biological sciences and the problems encountered at the bedside of the patient. They are usually the ones who recognize the infrequent "experiments of nature"--unique and rare variants in spontaneously occurring human disease--and exploit the opportunity these offer to illuminate new approaches to problems in basic biological science. The discouragement
of physicians with the possibilities for careers in research will soon be followed by comparable perceptions and responses in other scientists who aspire to research careers in the biosciences.

As young scientists become discouraged, research funds will increasingly be controlled by older and less competitive scientists, with a gradual diminution in innovation and a slow deterioration in quality. Externally, there is likely to be little perception of change. Grants will be made, research will be conducted, papers and books will be published. But this will in reality be the triumph of "form," covering up the strangulation of "substance."

Is this present and predicted state of affairs in the public interest? Do the people of this nation desire or will they knowingly countenance the dissolution of an enterprise that has done so much to make life longer and more tolerable for so many? The Association believes not. It also believes that it is up to the Congress to take the necessary steps to insure a vigorous future for biomedical science, and it is puzzled by the resistance encountered over the last several years in persuading that Branch of Government to take appropriate action.

The epoch of generous government support for biomedical research began just before World War II and continued until about 1968. Most of the Federal officials who played key roles during that period in developing and implementing Federal policy have disappeared from public life; many of those currently active have only a vague remembrance of the relevant history. Science, including biomedical science, mobilized completely to meet the challenge of World War II. Funded by the Federal Government, its accomplishments--proximity fuses, radar, fission weapons, a myriad of useful techniques developed by operations research, antibiotics, anti-malarials, traumatic surgery, and many others--left a deep impression on the people of the United States and their representatives. The proposition that this immensely productive war time process could and should be marshalled for an assault on peacetime problems received broad and enthusiastic public support.

More by happy accident than deliberate design, the post-war effort followed the war-time pattern, according to which the bulk of biomedical research funding was channeled into academic institutions. Over the years, many Federal officials seem to have forgotten that research performed in the academic institutions of this nation is a partnership arrangement with the Federal Government to realize the aspirations of our society. Though now it has become thoroughly integrated into the academic process, and its abrupt excision would be lethal to many performer institutions, the great bulk of it is a public service, not essential to the core educational functions of the schools. The Association view is that this nation has created a marvelously productive and uniquely American system that has vaulted the United States to primacy in science, particularly in biomedical science, and that has brought enormous benefits to the American people.

But, increasingly, public officials seem to have forgotten the circumstances and forces that led to the forging of this partnership. Research has somehow come to be viewed by many as a gratuity to academic institutions to assist in their educational missions. Nothing could be further from the truth.
The essential prescription for continued progress and new successes is not for more planning or for more reorganization or even for less paperwork, although the latter would help. What is really needed is a dedication anew to the principle that this nation is willing, in good times and in bad times, to make reasonable investments in research to improve the health and well being of its people and to reduce the mortality and morbidity caused by disease. It is an inescapable reality that, unless government provides them, adequate funds will not be forthcoming. Industry, unable to rely on exploiting for its own profit the advances achieved by the basic research it might sponsor, has always under-invested in this enterprise and there is little prospect that this will change in the foreseeable future. There are no other significant sources of funds for biomedical research.

Investments by government of $3.8 billion in FY 1978 represent only 2.0% of national expenditures for health. Indexed to health expenditures, investments have fallen steadily for more than a decade. The research enterprise despite its high esprit is under great stress.

- Bright scientists with good ideas are unable to secure financial backing for their research.
- Aspirant scientists are beginning to become discouraged by the dim outlook for careers in biomedical research.
- There is a dearth of opportunities for young and innovative academically oriented scientists to join faculties.
- Distinguished departments which are beginning to contract scientists at or just below "star" level can no longer secure support for their research, and self renewal through the infusion of new blood becomes impossible.
- Training opportunities are rapidly disappearing.
- Much of the "plant" is aged, run down, dilapidated and functionally passe.
- Equipment is dated and outmoded.

In short, the splendid biomedical research enterprise created by this nation since 1945 is beleaguered. Without prompt and strong relief measures, this country faces the real prospect of losing its leadership position in biomedicine, just as it seems likely to be eclipsed in other areas of science and technology.

The imperative of the times is for bold, imaginative and generous rededication. The health sciences, as S.988 implies, desperately need "promotion." Their future for all practical purposes is in the hands of the Congress. The challenge to that body is to provide the authorities and the funds to sustain, to rebuild and to expand this enterprise, threatened as never before by a decade of Federal parsimony. The new conventional wisdom is that it is pointless to invest in research for its long range payoff at this time, since the expected return on investment will be discounted by inflation. The Association does not believe that better health and longer life are discountable.
DISCUSSION GROUP ON COMPETENCY TESTING

This discussion group will attempt to make explicit the various dimensions of competence while studying its relationship to various decisions of an educational, licensing, and certifying nature. Distinctions between competence and performance will be drawn and an attempt will be made to consider the major dimensions of competence. The various settings and instances of competency assessment will be addressed. For example, the role of a written examination in the certification process will be considered in terms of the implications of such certification for society. Various approaches to assessing competency will be explored as adding new dimensions and achieving greater accountability.

Topics such as self-assessment, continuing education, recertification and re-licensure will be introduced as settings in which competency measures may play a role. The validity of competency measures for these purposes will be studied.

Available to support the discussion will be representatives from various organizations involved in the educational licensing and certification processes.
CAS BUSINESS MEETING AGENDA

Monday, November 5, 1979
1:30 - 5:00 P.M.
Jefferson West Room
Washington Hilton Hotel
I. Call to Order

The meeting was called to order at 1:30 p.m. Dr. Robert Berne, Chairman, presided. Sixty-two individuals, representing 53 of the 63 member societies were present.

II. Approval of Minutes

The minutes of the Council of Academic Societies Business Meeting, held on November 7, 1977, were approved as submitted.

III. Chairman's Report - Dr. Robert Berne

The full text of the Chairman's Report is attached to these minutes as Addendum 1.

IV. AAMC Chairman's Report - Dr. Robert Petersdorf

Dr. Petersdorf expressed his gratitude at the opportunity to address the CAS, having been its chairman in 1972-73. He stated that through his involvement with CAS and his subsequent leadership positions within AAMC, he had accumulated certain observations about the function of the CAS in the affairs of the Association which he would like to share with the membership. First, he stressed his view that the importance of CAS to the organization as a whole has grown and strengthened as evidenced by the recent development of the Biomedical and Behavioral Research Policy and by the CAS role in such recent legislative matters as the Clinical Laboratory Improvement Act and Section 227. Dr. Petersdorf offered the observation, on the other hand, that CAS had not yet realized its full potential and that it still did not function as smoothly or effectively as the other Councils of AAMC. He mentioned several characteristics of CAS which in his view tended to stifle its effectiveness as

*The program activities of the Association for 1978 were delineated in the AAMC Annual Report distributed to all registrants at the AAMC Annual Meeting. Additionally, a summary of these activities was prepared especially for CAS and was distributed to the membership during the Business Meeting. This summary was prepared at the request of CAS representatives who indicated their need for a brief reference to facilitate their reporting AAMC activities to the societies that they serve. The CAS Directory, which will be revised and distributed to the CAS mailing roster in early 1978, will contain this abstract.
a component member of the Association: 1) the diverse membership of CAS which at times fractures and obscures its goals and objectives; 2) the rapid turnover in leadership among the societies; 3) the variability in internal communications of each society; and 4) the variability in the legislative knowledge and expertise of the individuals in each society.

Dr. Petersdorf acknowledged that attempts are being made to address these problems. The impact of the rapid turnover in CAS representation has been lessened somewhat by the institution of the Public Affairs Representatives who serve three year terms; the legislative knowledge and expertise of CAS societies is being elevated by the offering of periodic legislative workshops. Dr. Petersdorf outlined his suggestions with regard to the other perceived problems with the organizational function of CAS. First, he advocated a wider distribution among society members of the Weekly Activities Report and the CAS Brief. Secondly, he encouraged all CAS societies to consider seriously subscribing to the CAS Services Program. He stated that the Association of Professors of Medicine and the three neurology societies which now participate in the program are pleased with the augmented level of services they now receive and have vastly increased their political horizons and their interaction with legislators and regulators in the Federal government. Finally, Dr. Petersdorf recommended a change in the system of election of members of the CAS Administrative Board. Noting that CAS is the only one of the AAMC Councils that continues to hold a Council-wide election of its officers, he urged CAS to adopt a new system whereby a nominating committee develops a slate of proposed officers for final ratification by the full Council.

V. President's Report - Dr. John A. D. Cooper

Dr. Cooper expressed his appreciation for the important role CAS fulfilled within the AAMC during the past year. He concurred with Dr. Petersdorf's observations about the potential for further improvement within CAS and expressed the hope that CAS would seriously consider the Chairman's recommendations.

Dr. Cooper provided a brief summary of the Association's activities during the year and outlined future goals. He stressed the fact that AAMC's central focus is not one of influencing legislation but rather one of promoting excellence in teaching, research, and patient care and of seeking solutions to the important health care problems facing the nation. Dr. Cooper outlined the activities of the major AAMC task forces and committees noting that both the Task Force on Minority Student Opportunities in Medicine and the Student Financing Task Force had submitted final reports during the year which the Assembly would consider later in the week.

Dr. Cooper urged CAS members to become more familiar with the resources the Association makes available to constituents. A vast amount of data on students, faculty members, and institutions is collected and analyzed by AAMC and, although there are certain restrictions to its dissemination, much of the data is available to CAS societies. In addition, numerous publications are available to CAS through AAMC.

Dr. Cooper also stated that AAMC had received a grant from the Health Care Financing Administration to develop a primer, for use in the institutions, on the subject of quality assurance and cost containment. He added that cost containment and related issues would be of major concern to AAMC in coming years.
Dr. Cooper concluded his remarks with a brief discussion of Section 227. He urged CAS to follow this issue closely and to remain as knowledgeable and involved with national issues as they had been this year.

VI. Action Items

A. New Membership Applications

In accordance with the established procedures, election to membership in AAMC of Academic Society Members is upon recommendation by the Council of Academic Societies to the Executive Council and by majority vote in the Assembly. It was the recommendation of the CAS Administrative Board that the following applications for membership be approved by the full Council:

- American Society of Hematology
- American Society for Pharmacology and Experimental Therapeutics
- Association of Academic Departments of Otolaryngology
- Association for the Behavioral Sciences and Medical Education
- Society for Neuroscience
- Thoracic Surgery Program Directors

**ACTION:** The above applications for membership were unanimously approved.

**NOTE:** On October 24, 1978, by action of the AAMC Assembly, these societies were elected to AAMC Membership, increasing to 69 the number of societies in the CAS.

B. Election of Members to 1978-79 Administrative Board

**ACTION:** The Council elected by ballot the following to serve on the CAS Administrative Board to take office at the conclusion of the CAS Business Meeting:

- **Chairman-Elect**
  
  Carmine D. Clemente, Ph.D., Representative, American Association of Anatomists (Director, Brain Research Institute, UCLA)

- **For Administrative Board, from the Basic Sciences (for three years):**
  
  David M. Brown, M.D., Representative, Academy of Clinical Laboratory Physicians and Scientists (Professor, Department of Laboratory Medicine/Pathology/Pediatrics, University of Minnesota)

- **For Administrative Board, from the Clinical Sciences (for three years):**
  
  T. R. Johns, M.D., Representative, American Neurological Association (Chairman, Department of Neurology, University of Virginia)

  Virginia V. Weldon, M.D., Representative, Society for Pediatric Research (Associate Professor of Pediatrics, Washington University)
A. AAMC Dues Increase

Dr. Berne explained that the increase in AAMC dues for CAS societies would be based upon an annual inflator consistent with the November 1977 Revised Consumer Price Index for Urban Wage Earners and Clerical Workers--Washington, D.C. The increase will not go into effect until FY 1980, and it was pointed out that there had not been an increase in CAS dues since 1973.

B. Biomedical Research Policy and the Califano Initiative in Support of U.S. Health Research Policy

Dr. Thomas E. Morgan, Director of the AAMC Division of Biomedical Research, reviewed the history and current status of the Califano Initiative to develop DHEW Health Research Principles. He discussed the AAMC position paper "A Policy for Biomedical and Behavioral Research" and stated that the AAMC was gratified to learn that much of the paper had been incorporated into the HEW document entitled "Draft Principles in Support of Biomedical Research." Dr. Morgan, Dr. Berne, and other AAMC representatives attended a meeting at NIH on October 3-4 to discuss the DHEW document. At that meeting, Secretary Califano stated his intention to involve the academic community in the development over the next year of a budget in support of biomedical research. Dr. Morgan indicated that AAMC is aware of the negative aspects of the DHEW initiative and acknowledged that there is considerable skepticism within academic medicine about Secretary Califano's intentions. Dr. Morgan stated, on the other hand, that some satisfaction, as well as optimism, should be derived from the fact that this is the first time a Secretary of DHEW has offered to involve the academic community in the development of the health research budget.

After Dr. Morgan's remarks, the floor was opened for discussion. Several concerns were voiced with the overriding concern being that basic research not be compromised or lost sight of in the process of developing a health research strategy and a budget for health research. There was general agreement that other areas such as targeted research and research related to health care systems are very important but should be viewed as augmenting the basic research effort rather than replacing it. Several society representatives requested that copies of Califano's speech delivered at the October 3-4 NIH meeting be distributed to CAS. In addition, there was consensus that AAMC should remain closely involved with the process of defining a national health research strategy but at the same time, retain a certain degree of healthy skepticism and be cautious not to lend support to a process which might result in a strategy and a budget not consonant with AAMC policy.

C. Report of the Task Force on the Support of Medical Education

Dr. Stuart Bondurant, Chairman of the Task Force, was present to discuss its Preliminary Report and review the report's major recommendations. He
outlined the assumptions upon which the Task Forces' deliberations were based. The rationale behind the eventual Task Force recommendations that 1) broad-based institutional support must be continued and that 2) enrollment levels should be stabilized was described. Following a brief discussion of the report, it was recommended that the final report incorporate the related recommendations of the Student Financing Report so that readers need not refer to another document to understand the portions dealing with student financial assistance. Dr. Bondurant invited further suggestions and asked that comments on the Report be directed either to him or to Dr. Thomas Kennedy at AAMC.

D. Graduate Medical Education

Dr. August G. Swanson, Director of the Department of Academic Affairs at the AAMC, provided a status report on the Graduate Medical Education Task Force. Working groups on the Task Force on Transition, Quality, Specialty Distribution, and Accreditation have been appointed and have held meetings to consider issues related to those particular aspects of graduate medical education. A working group on Financing will be appointed in the near future. Dr. Swanson outlined the preliminary report of the Working Group on Transition which recommended several changes in the application process and in the structure of the first graduate year. The group recommended the development of a uniform application for graduate training programs and recommended that the calendar for the application process be modified to allow students more time to make considered decisions about specialty and program choice. With regard to the broad-first year, the Transition Working Group recommended that the first-year program type designations be changed to Categorical (for all students embarking on training in a chosen specialty) and Transitional (for students desiring a broad clinical year). The new Categorical designation would represent a merger of the current Categorical and Categorical*; the new Transitional designation would replace the Flexible.

Dr. Swanson also described the Working Group's recommendations on mechanisms for ensuring that the first graduate year under either designation is a legitimate educational experience with appropriate institutional quality control. He noted that the Working Group's report had been circulated to the LCGME as well as to several RRCs and specialty boards.

In commenting on this portion of Dr. Swanson's report, CAS representatives stressed that the issues surrounding the transition from undergraduate to graduate medical education are of great concern to CAS societies. Several representatives discussed the particular impact these recommendations would have in their own specialty areas and suggested that the report should have been circulated to CAS members for comment prior to submission to agencies outside AAMC. Dr. Swanson also reviewed the preliminary report adopted by the AAMC Executive Council on specialty distribution. During discussion of this position paper, the most frequent objection raised was that the recommendations for redistributing specialty training positions were too specific and were based upon unstated assumptions about the future health care system. Dr. Swanson stressed that this position paper represented an interim statement. The Task Force Working Group on Specialty Distribution will be examining in much greater depth the issues surrounding why students make the specialty choice decisions they do and how specialty choice might be influenced to better balance the distribution of manpower among the specialties.
There was consensus that issues related to graduate medical education including specialty distribution and the transitional period should be discussed in depth at a future meeting of CAS. Dr. Swanson suggested that the CAS spring meeting might focus on these various aspects of graduate medical education.

E. Biomedical Research Training Legislation

Dr. Thomas Morgan provided a report on the recently enacted Biomedical Research Extension Act which extended authority for the National Cancer Institute, the National Heart, Lung and Blood Institute, and for research training. He reported that the Omnibus Tax Bill included a provision which placed a moratorium on taxation on the first $300 per month of fellowship income from research training award made under the National Research Service Awards Act. Dr. Morgan also provided a brief report on the outcome of other legislation including the housestaff unionization bill, the FY 1979 appropriations bill, and the Clinical Laboratory Improvement Act of 1978.

F. The Congress, Federal Regulations, and the Academic Community

Dr. John Sherman provided a background statement on the increasing concern that the burden of federal regulations is reaching a threshold level in terms of its effect on the academic community. There was considerable discussion of recent indications based on the medical device regulations and the FDA regulations on Institutional Review Boards that the situation will grow to be an even more serious intrusion on research and academic medicine. No specific solutions were proposed, but the overwhelming consensus was that complying with federal regulations was occupying an inordinate amount of faculty time in the medical schools. It was agreed that AAMC should continue to press for deregulation and more flexible legislation in its interactions with the Executive Branch and with Congress.

VIII. Guest Speaker

Paul B. Beeson, M.D., Chairman of the IOM Committee on Aging and Medical Education, spoke to CAS about the Committee's deliberations and subsequent recommendations with regard to the incorporation of knowledge on aging in the medical school curriculum. Dr. Beeson's speech is attached to these minutes as Addendum 2.

IX. Adjournment

The meeting was adjourned at 6:00 p.m.
REPORT OF THE CHAIRMAN
COUNCIL OF ACADEMIC SOCIETIES*

By

Robert M. Berne, M.D.
Chairman, 1977-78

First I want to welcome you to the 11th annual meeting of the Council of Academic Societies and to express my thanks to Drs. Cooper, Swanson and Morgan, and Ms. Dolan and Ms. Newman as well as many others on the AAMC staff who have helped me so much during my tenure as Chairman of the CAS. Over the past 11 years the CAS has grown continuously and at present we have 63 member societies and 6 societies with pending membership. Your administrative board has met several times in the last year and I would like to summarize briefly some of its activities for you.

1. One of the major problems facing us is Section 227 of the 1972 Medicare amendments. In brief, this legislation which grew out of a few isolated irregularities in payments of academic physicians, threatens to financially cripple the academic physicians and endanger our whole clinical medical educational system. The CAS has spent a great deal of time discussing this important legislation and has strongly supported AAMC's position to repeal, or at least temporarily suspend, enactment of the law which was to go into effect October 1st. According to the October 17 Weekly Report neither repeal, nor even suspension, of the law for one year was accomplished before Congress adjourned. Dr. Cooper will shortly report to us on this key issue.

2. The next item is the LCGME (Liaison Committee on Graduate Medical Education). A resolution proposed by Dr. Estabrook and approved by the CAS

*Presented 23 October 1978 at the Annual Business Meeting of the Council of Academic Societies, held in conjunction with the AAMC Annual Meeting, New Orleans Hilton Hotel, New Orleans, Louisiana.
at last year's meeting urged the restriction of LCGME activities to the
determination of program quality and not be concerned with numbers of
specialists or with geographical distribution of physicians. The resolution
was submitted to the Executive Council and approved at the March meeting.

3. The next item developed in response to a letter from Representative
Paul Rogers to John Cooper about the attitude of the AAMC with respect to
ethical questions and responsibility of academic scientists who do contract
work for industry. The letter was prompted by the scandal involving the
sterilization of some workers employed in a California plant that manufactured
the pesticide dibromochloropropane (DBCP). The CAS participated in the develop-
ment of an AAMC position which delineated what should be the responsibility of
the institution and of the individual researcher when conducting research
sponsored by industry, particularly when the research has some bearing on
health issues. This position paper was sent to all medical schools and CAS
representatives last April.

4. With respect to faculty involvement with foreign medical schools, the
CAS endorsed the position adopted by the AAMC that faculty members should
carefully investigate the educational quality of foreign medical school programs
before associating themselves with these programs, regardless of the remunerative
aspects of the association. The CAS was particularly concerned about U.S.
faculty members participating in programs sponsored by recently developed schools
which have been established primarily to exploit unsuccessful American medical
school applicants.

5. The CAS endorsed the AAMC policy statement on the withholding of medi-
cal care by physicians. This response stemmed from the action taken by some
California physicians who cancelled elective procedures in protest to the high
cost of malpractice insurance. It is considered unethical and unjustified for
physicians to act in concert to withhold medical care from patients seeking their services. This statement will be presented to the assembly.

6. With respect to peer review, the CAS Board (at its March meeting) discussed with Dr. Carl Douglas of the NIH Division of Research Grants, the situation within NIH of an increasing number of research grant applications coupled with decreases in staff and a constant number of study sections. This situation, along with recent administrative rulings which have allowed more access to application review files has seriously jeopardized the function of the peer review process. The AAMC has developed a working paper on this subject which was distributed to the CAS.

7. Last year we were addressed by Dr. Don Kennedy of the FDA and recently the Administrative Board of the CAS met with Dr. Dick Crout who is Director of the FDA Bureau of Drugs. Some of the problems faced by medical centers and individual investigators and caused by the increasing volume of FDA regulations were discussed. Dr. Crout reiterated the interest expressed last year by Dr. Kennedy in working more closely and cooperatively with academic medicine. Precisely how remains to be determined.

8. The CAS has concurred with the rest of the AAMC that cost containment for hospitals and health care should be tried on a voluntary basis.

9. The CAS has also reviewed several task force reports such as that on biomedical and behavioral research, guidelines for development of technical standards for admission of the handicapped to medical school, minority students' opportunities and student financial aid and support of medical education and of graduate medical education.

10. I also want to remind you that at this meeting there will also be another public affairs workshop on October 25th and 26th, 1978 sponsored by the CAS. The purpose is to educate public affairs representatives on how to most effectively represent their societies in the public policy legislation arena.
11. The last item in my report is the Biomedical and Behavioral Research Policy Statement of the AAMC which many of you recall has occupied much of our time and is one of the discussion items on today's agenda. The task force report which appears in its entirety on page 33 of your agenda book required several meetings of the task force as well as several meetings of the administrative boards of the three councils of the AAMC. Some of you attended a special meeting last January 18th in which an entire day was devoted to discussion of this policy statement. The discussion and input generated by this meeting were important in shaping the final policy. After further consideration by the task force and the AAMC Council, it was approved by the Executive Council of the AAMC last June. In essence the report recommends that 1) all levels of research are needed, namely, basic, applied, and targeted, 2) appropriate skilled investigators be trained, 3) there be public involvement in formulation of research policy, 4) the mechanisms for review and coordination be strengthened, 5) facilities and institutional support be improved so as to facilitate technology transfer, and 6) stable funding for all research processes be assured. Last April, Secretary of HEW, Califano, initiated five principles which were to eventually materialize into a five year plan for research support. In these he reiterated the President's support of basic research and said that 1) fundamental research should be maintained and receive enhanced federal support, 2) ample opportunities be assured for young investigators, 3) basic research be accompanied by interdisciplinary applications, 4) government-supported research should be strongly oriented toward improving the quality of health sciences and 5) HEW-supported research be oriented to develop knowledge to support health missions of HEW - prevention, delivery, regulation, standard setting, and cost control. The last two items are obviously at odds with the first three, particularly since all of this is to be done without any increase in budget. As an outgrowth of the
Secretary's report, the NIH was charged with the responsibility of holding a large conference on these principles. This consisted of input from many societies and individuals and culminated in a two-day conference that was held on October 3rd and 4th, 1978 at the NIH. A number of people, including myself, testified before a series of five panels. The information gathered by the panels will be incorporated into a final report by the Fall of 1979. It will serve as the basis of a five-year plan for HEW-supported research. The steps outlined by Secretary Califano will 1) adopt basic principles which outline the strategy and identify potential criteria for choosing between various research priorities, 2) set research goals for HEW agencies, and 3) transmit these goals into a five year budget which will be reviewed by the research community and then sent to Congress for action. This is all quite disturbing because it means that there is going to be selection of research areas for exploitation with neglect of others, and I do not know who are the prophets and what magical powers they possess that can help us decide the proper direction that basic research should take. In essence, it is a restatement of what we have heard before, namely, that research must now be targeted rather than of a fundamental nature and it is reminiscent of the article by Drs. Comroe and Dripps which I invited Dr. Comroe to submit to CIRCULATION RESEARCH four years ago. I would like to quote from this article.

"In 1966 President Lyndon Johnson said, 'Presidents need to show more interest in what the specific results of research are in their life time and in their administration. A great deal of basic research has been done but I think the time has come to zero in on the targets by trying to make our knowledge fully applied.' President Johnson's words popularized a new set of terms: research in the service of man (implying that there are two types of biomedical research, one that is in the service of man and another that is not), strategy for the cure of disease, targeted research, mission-oriented research, programmatic research, commission-directed research, contract-supported research and payoff research. And the
President's remarks have been summarized as 'research is fine but results are better' and 'we know all we need to know, now all we must do is apply what we already know.' His philosophy led to a sharp upsurge in contract-supported research and commission-initiated research."

In light of these statements and the goals set forth in the Task Force Report, I considered spending a few moments discussing the future of biomedical research. Then an article appeared in the Washington Post on Sunday, October 15th, that made me think it might be more interesting and entertaining to look at the past. The article concerned a book by Michael Hart entitled The 100 - A Ranking of the Most Influential Persons in History. I have distributed copies of the list, because, although it is very controversial - Edwin Reischauer commented that it leaves one "caught between amusement and outrage" - it is like a McDonald's hamburger, a fast-food version of the history of civilization which is all we have time for today. And most important, it gives us a clue to the significance of science in a larger context than for only the next five years in the United States. Thirty-nine of the 100 persons listed are either scientists and/or inventors. The Washington Post invited four guests - none of them scientists - to discuss the list and none of them disagreed with the preponderence of scientists. One of the guests commented that "the list is freighted with scientists and inventors, and rightly so. Science has altered the mindset of man."

As in the case of the four guests, all of our views would differ about who should be included and in what order. Reischauer commented that "it is like ranking water, love and Europe." The point we have to consider is how many of these great scientists would have been funded under the new criteria that are being presented as guidelines for research support by HEW today. I seriously wonder whether Newton, Einstein, Darwin, etc. would have been funded according to these guidelines. Many great scientific discoveries such as penicillin occurred by chance. The greatest and most prolonged targeted research in the history of
Pyotr Kapitsa, who shared the prize in physics, was removed from his job because civilization was probably the alchemist's attempt to discover the philosopher's stone - a catalyst for the conversion of low grade metals to gold. This monumental world effort covered centuries and all countries and never reached its objective.

We should all study this hamburger of past history a great deal more in our leisure time, but history is also being made today. In just the last few weeks, the names of the new Nobel Prize winners were announced and undoubtedly some of them were funded by NIH grants. Would they be funded under the proposed guidelines? Interesting examples are two of the foreign prize winners. The Russian, Pyotr Kapitsa, who shared the prize in physics, was removed from his job because of his defiance of Stalin to work on targeted research, namely the atom bomb. R.V. Pound of Harvard said of him, "He will be remembered for many things, but most of all, he will be remembered for being an independent thinker in a country where independent thinking is not that easy." Then there is Peter Mitchell, the British biochemist who just won the Nobel Prize for chemistry for his explanation of how plants and animals convert nutrition into energy. He did his research in a small private laboratory built in an old farm house. Would he have been funded under the proposed guidelines?

The list of 100 VIP's is purely anecdotal. We know where we have come from and we will discuss the list of 100, 150, 1,000 as long as we live. The big question is where are we going and where do we want to go. Research costs money and there is only so much to go around. There is no question that we want better health care and a better life for all people, but most of all we want advances in basic fundamental knowledge that in the long run would benefit all of civilization. Even though Thomas Jefferson* was omitted from the list of 100, I do not think that Mr. Hart would disagree with one of his most famous quotations which he made

*The Washington Post omitted #69 and #70, and #70 was Thomas Jefferson. Hence, the statement above is incorrect but the basic meaning is unchanged.
at the founding of the University of Virginia: "This institution (or union of scientists) will be based on the illimitable freedom of the human mind for here we must not be afraid to follow truth wherever it may lead, not to tolerate any error so long as reason is left to combat it." To paraphrase astronaut Neil Armstrong, this statement may not represent a giant step forward for civilization in Mr. Hart's thinking, but I certainly believe that it could represent a small step in the proper direction for HEW policy.
ELECTION OF ACADEMIC SOCIETY MEMBERS

The following academic societies are submitted for consideration for election to membership status within the AAMC:

American Academy of Child Psychiatry
Association of Program Directors in Internal Medicine
Society for Health and Human Values

All of these societies have been recommended for membership by the CAS Administrative Board and have been forwarded to the CAS and the Assembly for approval. Their applications appear on the following pages.
NAME OF SOCIETY: American Academy of Child Psychiatry

MAILING ADDRESS: 1424 16th St., N.W.
                     Suite 201-A
                     Washington, D.C. 20036

PURPOSE: The stimulation and advancement of medical contributions to the knowledge and treatment of psychiatric problems of children. The Academy is committed to the concept of continuing education as a means of maintaining competence in child psychiatry.

MEMBERSHIP CRITERIA: See attached By-Laws, Article III

NUMBER OF MEMBERS: 2015

NUMBER OF FACULTY MEMBERS: It is estimated that approximately 80 - 90% are members of faculties of medical schools.

DATE ORGANIZED: 1952

SUPPORTING DOCUMENTS REQUIRED: (Indicate in blank date of each document)

as amended

October 25-29, 1978  2. Program & Minutes of Annual Meeting

(CONTINUED NEXT PAGE)
QUESTIONNAIRE FOR TAX STATUS

1. Has your society applied for a tax exemption ruling from the Internal Revenue Service?

   X YES  NO

2. If answer to (1) is YES, under what section of the Internal Revenue Code was the exemption ruling requested?

   501 (c) (3)

3. If request for exemption has been made, what is its current status?

   X a. Approved by IRS
   b. Denied by IRS
   c. Pending IRS determination

4. If your request has been approved or denied, please forward a copy of Internal Revenue letter informing you of their action.

   (Completed by - please sign)

   Larry B. Silver, M.D.
   Secretary of the American Academy of Child Psychiatry
   (Date) 23, 1979
MEMBERSHIP APPLICATION
COUNCIL OF ACADEMIC SOCIETIES
ASSOCIATION OF AMERICAN MEDICAL COLLEGES

MAIL TO: AAMC, Suite 200, One Dupont Circle, N.W., Washington, D.C. 20036
Attn: Ms. Lynn Cumin

NAME OF SOCIETY: Association of Program Director in Internal Medicine

MAILING ADDRESS: Department of Medicine
Maimonides Medical Center
4802 Tenth Avenue
Brooklyn, New York

PURPOSE: To advance medical education by benefiting and aiding the medical education programs of those hospitals located in the United States of America and the Commonwealth of Puerto Rico that are approved by the Residency Review Committee in Internal Medicine of the Liaison Committee for Graduate Medical Education of the Council on Medical Education of the American Medical Association ("Residency Review Committee") to provide residency training programs in Internal Medicine.

MEMBERSHIP CRITERIA:

1. Program Members: The designated Directors of the residency training programs, as listed with the Residency Review Committee.

2. Individual Members: Other members representing a hospital in respect to which the program membership dues have been paid (Director of Department of Medicine if other than the program director, associate director of residency training program).

NUMBER OF MEMBERS:

1. Program (institutional) members representing 53% of 425 training programs in Internal Medicine accredited by the LCME upon recommendation of the RCC in Internal Medicine.

Approximately 224 members represent 53% of 425 training programs in Internal Medicine.

Almost all program members have faculty appointments. Exact number being determined. The program members include 41 who are also members of the Association of Professors of Medicine, Committee organized April 23, 1977. "First Official" meeting April 16, 1978 at which time the 275 program directors who attended unanimously ratified the constitution and by-laws.

DATE ORGANIZED: Approximately 60 at this time.

SUPPORTING DOCUMENTS REQUIRED: (Indicate in blank date of each document)


Nov. 5, 1977, April 16, 1978, October 21, 1978, Semi-
March 25, 1978 2. Program publications of Annual Meeting
July, 1979

August 30, 1979 4. History of APDIM

(40)
QUESTIONNAIRE FOR TAX STATUS

1. Has your society applied for a tax exemption ruling from the Internal Revenue Service?
   
   ![YES NO]
   
   YES NO

2. If answer to (1) is YES, under what section of the Internal Revenue Code was the exemption ruling requested?

   501 (C 3)

3. If request for exemption has been made, what is its current status?

   a. Approved by IRS
   b. Denied by IRS
   c. Pending IRS determination

4. If your request has been approved or denied, please forward a copy of Internal Revenue letter informing you of their action.

   [Signature]

   (Completed by - please sign)

   August 30, 1978
   (Date)
MEMBERSHIP APPLICATION
COUNCIL OF ACADEMIC SOCIETIES
ASSOCIATION OF AMERICAN MEDICAL COLLEGES

MAIL TO: AAMC, Suite 200, One DuPont Circle, N.W., Washington, D.C. 20036
Attn: Ms. Lynn Gumm

NAME OF SOCIETY: Society for Health and Human Values

MAILING ADDRESS:
1100 Witherspoon Building
Philadelphia, PA 19107

PURPOSE: The Society for Health and Human Values is a professional association whose primary objective is to encourage and promote informed concern for human values as an essential, explicit dimension of education for the health professions. To accomplish this objective, the Society seeks, through a variety of endeavors: To facilitate communication and cooperation among the professionals from diverse disciplines who share such an objective; To support critical and scholarly efforts to develop knowledge, concepts and programs dealing with the relation of human values to education for the health professions.

MEMBERSHIP CRITERIA: The Council of the Society invites individuals who are involved or interested in the concerns of the Society to apply for membership by submitting an application form and paying membership dues of $15 per calendar year ($7.50 for students).

NUMBER OF MEMBERS: 1263

NUMBER OF FACULTY MEMBERS: 622

DATE ORGANIZED: 1969

SUPPORTING DOCUMENTS REQUIRED: (Indicate in blank date of each document)

Revised November 6, 1977 1. Constitution & Bylaws

2. Program & Minutes of Annual Meeting

(CONTINUED NEXT PAGE)
QUESTIONNAIRE FOR TAX STATUS

1. Has your society applied for a tax exemption ruling from the Internal Revenue Service?

   X YES  NO

2. If answer to (1) is YES, under what section of the Internal Revenue Code was the exemption ruling requested?

   501(c)(3)  509(a)(1)

3. If request for exemption has been made, what is its current status?

   X a. Approved by IRS
   ___ b. Denied by IRS
   ___ c. Pending IRS determination

4. If your request has been approved or denied, please forward a copy of Internal Revenue letter informing you of their action.

   (Completed by - please sign)

   ________________________________
   (Date)

   ________________________________
   1. 29, 79
ELECTION OF MEMBERS TO THE 1979-80 ADMINISTRATIVE BOARD

The 1979 CAS Nominating Committee met in Washington on June 13, 1979 to develop a slate of nominees for vacant positions on the Administrative Board. The slate of nominees which resulted from that meeting is as follows:

CHAIRMAN-ELECT

Daniel X. Freedman, M.D.
American Association of Chairmen of Departments of Psychiatry
Chicago, Illinois

BASIC SCIENCE POSITIONS

* Robert L. Hill, Ph.D.
Association of Medical School Departments of Biochemistry
Durham, North Carolina

Lowell M. Greenbaum, Ph.D.
American Society for Pharmacology and Experimental Therapeutics
Augusta, Georgia

CLINICAL SCIENCE POSITIONS

Frank C. Wilson, Jr., M.D.
American Academy of Orthopaedic Surgeons
Chapel Hill, North Carolina

Joseph E. Johnson, III, M.D.
Association of Professors of Medicine
Winston-Salem, North Carolina

Curriculum Vitae forms for candidates appear on the following pages.

*To serve on the Board for one year, completing the term of Dr. Frank Young who resigned from the Board as is traditional in CAS on assuming a deanship.
NOMINEES FOR CAS ADMINISTRATIVE BOARD
CV FORM

Name: Daniel X. Freedman, M.D.

Present Location (School): The University of Chicago
CAS Society: American Association of Chairmen of Departments of Psychiatry

Undergraduate School: Harvard
Degree: B.A. Date: 1943

Medical School: Yale
Year Graduated: 1951

Location and Nature of Major Graduate Training:

Housestaff (e.g. Inst. & Res., Pediatrics, Northwestern 1957-59):

Internship, Pediatrics, Grace-New Haven Community Hospital 1951-52
Residency, Psychiatry, Yale 1952-55; Graduate, Western New England Institute of Psychoanalysis 1958-66
Fellowship (e.g. Peds/Cardiology, Yale University, 1960-61):

Board Certification:

Eligible but not certified (Specialty/Date)

Academic Appointments (With Dates):
1966- Professor & Chairman, Department of Psychiatry, University of Chicago
1969- Louis Block Professor of Biological Sciences, University of Chicago
1955-1958 Instructor, Dept. of Psychiatry, Yale University School of Medicine
1958-1966 Chief, Biological Sciences Section, Dept. of Psychiatry, Yale University;
Director of Graduate Research Training Program in Psychiatry and Neurobehavioral Sciences, Yale; Attending Psychiatrist, Yale-New Haven Comm. Hosp.;
Consulting Psychiatrist, Veterans Administration Hosp., West Haven, Conn.;
Fairfield Hills Hospital, Newton, Conn.; Connecticut Valley Hosp., Middletown, Conn.; Yale Psychiatric Institute.

Societies/Affiliations:
American College of Neuropsychopharmacology; American Society for Pharmacology and Experimental Therapeutics; American Society for Clinical Pharmacology and Therapeutics; American Psychiatric Association (Vice-President); Institute of Medicine, National Academy of Sciences; American Medical Association; American Psychosomatic Society; Chicago Psychoanalytic Society

Honors/Awards:
The William C. Menninger Award: The American College of Physicians, 1975
Award for Distinguished Achievement: Modern Medicine, 1973
American Academy of Arts and Sciences, 1979
Name: Robert L. Hill
Present Location (School) Duke University
CAS Society: Association of Medical Schools, Departments of Biochemistry
Undergraduate School: University of Kansas
Graduate School (with degrees and areas of specialization)(e.g. University of Wisconsin 1957-60, Ph.D. 1960, Biochemistry)

- University of Kansas, 1949-54, Ph.D., 1954, Biochemistry

Academic Appointments (with dates)

- University of Utah, 1954-61 - Instructor to Assoc. Res. Professor
- Duke University, 1961-79 - Associate Professor to Professor and Chairman

Societies/Affiliations:

- American Society of Biological Chemists, Council 1969-78, Secretary
  1972-75, President, 1976.
- National Academy of Sciences
- Institute of Medicine
- American Academy of Arts and Sciences

Honors/Awards:
NOMINEES FOR CAS ADMINISTRATIVE BOARD
CV FORM

Name: Lowell Greenbaum, Ph.D.

Present Location (School)  Medical College of Georgia
CAS Society: American Soc. for Pharmacology and Experimental Therapeutics
Undergraduate School: City College of New York

Graduate School (with degrees and areas of specialization)(e.g. University of Wisconsin 1957-60, Ph.D. 1960, Biochemistry)

Tufts University, Ph.D. 1953, Physiology

Academic Appointments (with dates)
Chairman, Dept of Pharmacology, Medical College of Georgia, 7/79 - present
Professor of Pharmacology, Columbia Univ Coll of Physicians & Surgeons, 1970-79
Assoc. Prof. of Pharmacology, " " " " " " " " " " 1966-70
Asst. Prof. of Pharmacology, " " " " " " " " " " 1964-66
Asst. Prof. of Pharmacology, SUNY-Downstate, 1958-64
Instructor of Pharmacology, SUNY-Downstate, 1956-58
Instructor of Physiology, Tufts University, 1953-56

Societies/Affiliations:
American Society of Biological Chemists, American College of Clinical Pharmacology, American Chemical Society, Harvey Society, American Association for the Advancement of Science, American Association of University Professors, International Society for Biochemical Pharmacology

Honors/Awards:
Career Scientist for the Health Research Council of New York City, 1969-75
Visiting Professor and Fellow, National Science Foundation, Osaka University, 1970-71
NOMINEES FOR CAS ADMINISTRATIVE BOARD
CV FORM

Name: Frank C. Wilson
Present Location (School) University of North Carolina
CAS Society: American Academy of Orthopaedic Surgeons
Undergraduate School: Vanderbilt University
Degree: A.B. Date: 1950
Medical School: Georgia Year Graduated: 1954

Location and Nature of Major Graduate Training:

Housestaff (e.g. Inst. & Res., Pediatrics, Northwestern 1957-59):
Resident, surgery and Orthopaedics, Presbyterian Hospital,
Columbia-Presbyterian Medical Center, 1958-1962

Fellowship (e.g. Peds/Cardiology, Yale University, 1960-61):
Orthopaedics, Presbyterian Hospital, CPMC, 1962-63

Board Certification:
Orthopaedic Surgery, 1966
(Specialty/Date)

Academic Appointments (With Dates):
Inst. Orthopaedic Surg., Univ. of N. Carolina Sch. of Medicine, 1964
Asst. Prof. Orthopaedic Surg., Univ. of N. Carolina Sch. of Medicine, 1965-68
Assoc. Prof. & Chairman, Orthopaedic Surg., Univ. of N. Carolina Sch. of Med. 1967
Professor, Orthopaedic Surg., Univ. of N. Carolina Sch. of Med, 1971 - present

Societies/Affiliations:
AAMC, AMA, American Academy of Orthopaedic Surgeons, American Orthopaedic
Association, Association of Orthopaedic Chairman, American College of
Surgeons, American Association for Surgery of Trauma.

Honors/Awards:
Markle Scholar in Academic Medicine, 1966-71
Amer. Orthopaedic Association Exchange Fellowship 1969
Nicholas Andry Award for Orthopaedic Research, 1972
Nominees for CAS Administrative Board
CV Form

Name: Joseph E. Johnson, III, M.D.

Present Location (School): Bowman Gray School of Medicine of Wake Forest University
CAS Society: Association of Professors of Medicine
Undergraduate School: Vanderbilt University
Degree: B.A. Date: 1951
Medical School: Vanderbilt Medical School Year Graduated: 1954

Location and Nature of Major Graduate Training:

Housestaff (e.g. Inst. & Res., Pediatrics, Northwestern 1957-59):


Fellowship (e.g. Peds/Cardiology, Yale University, 1960-61):

  Johns Hopkins Infectious Diseases & Immunol. 1959-60

Board Certification:

  Internal Medicine 1962
  (Specialty/Date)
  Allergy and Immunology 1974
  (Specialty/Date)

Academic Appointments (With Dates):

  Instructor, Asst. Prof. & Asst. Dean, Johns Hopkins 1961-66

  Assoc. Prof., Prof. & Chief, Infectious Diseases & Assoc. Dean, Univ. of Florida College of Med. 1966-72
  Prof. & Chairman, Dept. of Med., Bowman Gray School of Medicine 1972-
  Chief of Medicine, NC Baptist Hospital 1972-

Societies/Affiliations:


  Fellow Amer. Acad. of Allergy, Assoc. of Am. Phys., Assoc. of Prof. of Med.

Honors/Awards:

  Markle Scholar, Mead-Johnson Scholar (American College of Physicians),
  Royal Society of Med. Trav. Fellowship, Alpha Omega Alpha, Phi Beta Kappa
In its Final Report of November 16, 1978, the Working Group on the Transition-Between Undergraduate and Graduate Medical Education of the AAMC Task Force on Graduate Medical Education recommended that AAMC develop an application form for first-year graduate medical education programs that would request information universally accepted as essential for making selection decisions. Pursuant to this charge, AAMC developed a prototype universal application form, which was refined according to the recommendations of the Working Group on Transition, the GSA Steering Committee, the OSR Administrative Board, and AAMC Staff. The resulting "AAMC Application for First Year of Graduate Medical Education" is designed to meet the criteria established by the Working Group on Transition and thereby facilitate the process of applying for a first-year residency position.

The existence of this Universal Application is not intended to preclude institutions or programs from requiring additional information of the students in whom they are interested. The Application materials will include a return card so that their receipt by program directors can be easily verified to students.

The Association is exploring the desirability of providing these application materials to the medical schools for distribution to students planning to enter residencies in 1981.
APPLICATION FOR FIRST YEAR OF GRADUATE MEDICAL EDUCATION

FROM: Students who are or will be graduates of U.S. medical schools

TO: Graduate Medical Education Programs accredited by the Liaison Committee on Graduate Medical Education
INSTRUCTIONS – PLEASE READ CAREFULLY

The application materials include an Application Form and a Program Designation/Acknowledgement Card, which are to be used solely for applications for first-year graduate medical education programs.

1. Application Form. The Application Form is a 4-page document.
   Pages 1 and 2 may be completed once and copied for distribution to all programs where an application is filed.
   Pages 3 and 4 may be completed once and copied for distribution to more than one program, or they may be completed individually for each application.

   For each application the pages should be assembled in sequence and stapled together in the upper left corner. THE APPLICATION FORM IS COMPLETE ONLY IF IT INCLUDES ALL FOUR PAGES AND THE APPLICANT’S SIGNATURE (NOT COPIED) ON PAGES 2 AND 4.

2. Program Designation/Acknowledgement Cards. It is essential that original Program Designation and Acknowledgement Cards be completed for each application. DO NOT SEPARATE THESE TWO CARDS. The cards indicate the starting year of the program for which the application is filed (the color of the cards also changes from year to year). Be sure to use cards intended for the appropriate year.

   A. Acknowledgement Card. Enter your name and current mailing address on the lines provided. Place a stamp on the card. This card will be returned to you by each program to which you apply to acknowledge receipt of your application materials.

   B. Program Designation Card. Enter the basic applicant identification information at the top of the card exactly as it appears on page 1 of your application form. Designate the appropriate institution (hospital) and program (including NRMP code) to which the application is sent.

ATTACH THE COMPLETED PROGRAM DESIGNATION AND ACKNOWLEDGEMENT CARDS (JOINED BY PERFORATION TO EACH OTHER) TO THE UPPER LEFT FRONT OF THE COMPLETED APPLICATION FORM (space is provided for this purpose on the Program Designation Card).

A complete application for a first-year graduate medical education program includes:

1. A 4-page Application Form, including original signatures on pages 2 and 4;
2. Program Designation and Acknowledgement Cards, attached to each other and to the front of the Application Form.

Application materials should be mailed in an envelope measuring at least 9 inches by 12 inches so that the Program Designation and Acknowledgement Cards do not have to be folded. (Envelopes are available with application materials.)

Please TYPE or PRINT LEGIBLY throughout.

PERMANENT ADDRESS AND PHONE NUMBER (items 8 and 9, page 1): Enter the name, address, and telephone number of an individual through whom you can always be contacted (parent, spouse, etc.)

INTERVIEW SCHEDULING (item 14, page 2): Indicate the general time period or specific date(s) that you are able to appear for an interview.

PERSONAL STATEMENT (item 15, page 3): Most program directors want to know about your professional interests, achievements, and plans, including your ultimate goal for a specialty and your anticipated geographic location. If you have any singular professional accomplishments such as published papers, bibliographic reference should be included. In addition, it is desirable to describe your family and household and your personal interests and activities.

REFERENCES (item 17, page 4): Most programs require a minimum of three; space is provided for a maximum of five. Do not include individuals listed in item 16.

IT IS THE APPLICANT’S RESPONSIBILITY TO ARRANGE TO SUBMIT ANY SUPPLEMENTARY MATERIALS (TRANSCRIPTS, DEAN’S LETTERS, ETC.) REQUIRED BY A PARTICULAR PROGRAM.
# APPLICATION FOR FIRST YEAR OF GRADUATE MEDICAL EDUCATION

**1. NAME (LAST) (FIRST) (MIDDLE)**

**2. SOCIAL SECURITY NUMBER**

**3. DATE OF BIRTH (MO./DAY/YEAR)**

**4. NRMP NO. (IF KNOWN)**

**5. PRESENT ADDRESS**

**6. PRESENT PHONE NOS.**

**DAY ( )**

**EVENING ( )**

**7. NO. OF DEPENDENTS**

**8. PERMANENT ADDRESS C/O**

**NAME OF PERSON THROUGH WHOM I CAN ALWAYS BE CONTACTED**

**9. PERMANENT PHONE NO.**

**10. MEDICAL EDUCATION**

**MEDICAL SCHOOL(S)**

**MONTH OF ANTICIPATED GRADUATION FROM MEDICAL SCHOOL**

**ELECTIVES COMPLETED/PLANNED**

**HONORS/AWARDS**

**11. UNDERGRADUATE EDUCATION**

<table>
<thead>
<tr>
<th>UNDERGRADUATE COLLEGE(S)</th>
<th>DATES ATTENDED</th>
<th>MAJOR</th>
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*(53)*
## APPLICATION FORM - PAGE 2

### Association of American Medical Colleges
Application for First Year of Graduate Medical Education

<table>
<thead>
<tr>
<th>GRADUATE EDUCATION</th>
<th>DATES ATTENDED</th>
<th>AREA OF STUDY</th>
<th>GRADUATE DEGREE (IF ANY)</th>
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<td>CITY</td>
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</tbody>
</table>

12. AT THE TIME I BEGIN THE GRADUATE MEDICAL EDUCATION PROGRAM FOR WHICH I AM NOW APPLYING, I WILL/WILL NOT HAVE TAKEN THE FOLLOWING EXAMINATIONS:

- **A. NBME, PART I**
  - [ ] WILL HAVE TAKEN
  - [ ] WILL NOT HAVE TAKEN

- **B. NBME, PART II**
  - [ ] WILL HAVE TAKEN
  - [ ] WILL NOT HAVE TAKEN

- **C. FEDERATION LICENSING EXAMINATION (FLEX)**
  - [ ] WILL HAVE TAKEN
  - [ ] WILL NOT HAVE TAKEN

14. INTERVIEW SCHEDULING:

- [ ] THE FOLLOWING GENERAL TIME PERIOD(S) IS MOST CONVENIENT FOR ME:
  - FROM __________ TO __________

- [ ] I AM ABLE TO SCHEDULE AN INTERVIEW ON THE FOLLOWING SPECIFIC DATE(S):

- [ ] I AM NOT ABLE TO COME FOR AN INTERVIEW

I CERTIFY THAT THE INFORMATION SUBMITTED ON THESE APPLICATION MATERIALS IS COMPLETE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

**SIGNATURE OF APPLICANT**

**DATE**

NOTE: THE SIGNATURE AND DATE ON EACH APPLICATION MUST BE ORIGINAL.
Association of American Medical Colleges  
Application for First Year of Graduate Medical Education

<table>
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<tr>
<th>NAME</th>
<th>(LAST)</th>
<th>(FIRST)</th>
<th>(MIDDLE)</th>
<th>NRMP NO. (IF KNOWN)</th>
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<td>SOCIAL SECURITY NO.</td>
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<td>DATE OF BIRTH (MO./DAY/YEAR)</td>
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15. PERSONAL STATEMENT (SEE INSTRUCTIONS. USE ADDITIONAL SHEET IF NECESSARY)

16. NAMES OF INDIVIDUALS AT THIS HOSPITAL WHO KNOW ME AND HAVE OBSERVED MY PERFORMANCE:

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<tr>
<th>Name 1</th>
<th>Name 2</th>
<th>Name 3</th>
<th>Name 4</th>
<th>Name 5</th>
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j. (55)
17. THE FOLLOWING INDIVIDUALS HAVE BEEN ASKED TO WRITE REFERENCES FOR ME:

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<th>A. NAME &amp; TITLE</th>
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SIGNATURE OF APPLICANT

DATE

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Association of American Medical Colleges
APPLICATION FOR FIRST GRADUATE YEAR – BEGINNING IN 1981
PROGRAM DESIGNATION CARD

Name ____________________________  NRMP No. ____________________________
Last  First  Middle  (If known)
Social Security No.  ____________________________  Date of Birth  ____________________________
Medical School ____________________________
Date of Graduation from Medical School ____________________________
Enclosed are first graduate year application materials to:
INSTITUTION & LOCATION: __________________________________________
PROGRAM: __________________________________________  NRMP Code

Signature of Applicant ____________________________  Date ____________________________
APPLICATION FOR FIRST GRADUATE YEAR

(name)

This will acknowledge receipt of your application for a first-year position, beginning in 1981, in this graduate medical education training program.

PROGRAM

NRMP Code

INSTITUTION

DATE
FUTURE CAS MEETING DATES

Administrative Board Meetings

Wednesday, January 23 - Thursday, January 24, 1979
Wednesday, March 19 - Thursday, March 20, 1979
Wednesday, June 25 - Thursday, June 26, 1979
Wednesday, September 24 - Thursday, September 25, 1979

AAMC Annual Meetings

October 25-30, 1980
(Tentative date for CAS Business Meeting - Monday, October 27)

October 31 - November 5, 1981
(Tentative date for CAS Business Meeting - Monday, November 2)

November 6-11, 1982
(Tentative date for CAS Business Meeting - Monday, November 8)