

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
NATIONAL INSTITUTES OF HEALTH
NATIONAL LIBRARY OF MEDICINE
Bethesda, Maryland

A G E N D A

63rd Meeting of the

BOARD OF REGENTS

9:00 a.m., January 24-25, 1980

Board Room
National Library of Medicine

MEETING OPEN: All day on January 24 and from 9:00 to 11:00 a.m. on January 25.
MEETING CLOSED: From 11:00 a.m. to adjournment on January 25 for the review of grant applications.

- I. CALL TO ORDER AND INTRODUCTORY REMARKS Dr. S. Richardson Hill, Jr.
- II. REMARKS BY THE DEPUTY DIRECTOR, NIH Dr. Thomas E. Malone
- III. CONSIDERATION OF MINUTES OF LAST MEETING TAB I Dr. S. Richardson Hill, Jr.
(Orange Book)
- IV. DATES OF FUTURE MEETINGS TAB II
1980 and 1981 Calendars
Next Meeting: May 22-23, 1980 (Th-F)
Fall Meeting: October 9-10, 1980 (Th-F)
Winter Meeting: January 29-30, 1981 (Th-F) or
February 5-6, 1981 (Th-F)
- COFFEE BREAK
- V. REPORT OF THE DIRECTOR,.nlm TAB III Dr. Martin M. Cummings

VI. LISTER HILL CENTER PROGRAM REVIEW

TAB IV

Dr. Lionel Bernstein
Dr. Cecil G. Sheps, and
Dr. Nicholas E. Davies,
Discussants

Discussion

Board Members

LUNCHEON IN CONFERENCE ROOM "B"

VII. COMPUTER PROCUREMENT--UTILIZATION OF EXISTING COMPUTER RESOURCES

TAB V

Mr. Kent A. Smith
Mr. Harry Bennett
Mr. Alfred R. Zipf,
Discussant

Discussion

Board Members

VIII. DISTRIBUTION PLAN FOR AUDIOVISUAL MATERIALS

TAB VI

Dr. Harold M. Schoolman
Mr. Charles Farmer

Discussion

Board Members

COFFEE BREAK

IX. REVIEW OF NLM RESEARCH PLAN

TAB VII

Dr. William G. Cooper
Dr. S. Richardson Hill, Jr.,
and Mr. James F. Williams,
Discussants

Discussion

Board Members

X. REGIONAL MEDICAL LIBRARY PROGRAM UPDATE

TAB VIII

Mr. Kent A. Smith
Mr. Sheldon Kotzin
Dr. Doris H. Merritt,
Discussant

Discussion

Board Members

R E C E S S * * * * *

DINNERBethesda Naval Officers' Club
Cocktails (Cash Bar)6:30 p.m. 8901 Wisconsin Avenue
Dinner (Dutch Treat)7:30 p.m. "Bridge Room"
(List of dinner transportation arrangement, where appropriate, in agenda folder.)

SPEAKER: Dr. S. Richardson Hill, Jr.
President, University of Alabama in Birmingham, and
Chairman of the Board of Regents

TITLE: "The Presidential Elections"

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RECONVENE: 9:00 a.m., Friday, January 25, 1980

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| <p>XI. REPORT OF THE ASSOCIATE DIRECTOR
FOR EXTRAMURAL PROGRAMS</p> <p>A. Budget Picture</p> <p>B. Review of Board Operating Procedures--
"Guidelines for Adjustment by Staff
in Time and Amount of Grant Award"</p> <p>C. Continuing Education Grant Support</p> <p>D. History of Medicine Program Support</p> <p>E. Regulation Review
Discussion</p> <p>COFFEE BREAK</p> | <p><u>TAB IX</u></p> <p><u>Tab A</u></p> <p><u>Tab B</u></p> <p><u>Tab C</u></p> | <p>Dr. Ernest M. Allen</p> <p>Dr. Roger W. Dahlen
Dr. Cecil G. Sheps,
Discussant</p> <p>Dr. Jeanne L. Brand
Dr. Cecil G. Sheps,
Discussant</p> <p>Mr. Kenneth Carney
Board Members</p> |
| <p>XII. EVALUATION OF TRAINING PROGRAM IN HEALTH
SCIENCES AND COMPUTER TECHNOLOGY</p> <p>Discussion</p> | <p><u>TAB X</u></p> | <p>Dr. Roger W. Dahlen
Dr. Doris H. Merritt,
Discussant</p> <p>Board Members</p> |
| <p>-----</p> <p>MEETING CLOSED FROM 11:00 A.M. TO ADJOURNMENT FOR GRANT APPLICATION REVIEW</p> <p>-----</p> | | |
| <p>XIII. SPECIAL APPLICATIONS</p> <p>A. Publication</p> <p>B. Training</p> <p>C. Resource</p> <p>D. Improvement</p> | <p>(Gray Workbook)</p> <p><u>TAB I</u></p> <p><u>TAB II</u></p> <p><u>TAB III</u></p> <p><u>TAB IV</u></p> | <p>Dr. Jeanne L. Brand
Dr. Roger W. Dahlen</p> |
| <p>XIV. SUMMARY STATEMENTS</p> <p>A. Publication</p> <p>B. Special Scientific Project</p> <p>C. Training</p> <p>D. Research</p> <p>E. Resource</p> <p>F. Improvement</p> | <p><u>TAB V</u></p> <p><u>TAB VI</u></p> <p><u>TAB VII</u></p> <p><u>TAB VIII</u></p> <p><u>TAB IX</u></p> <p><u>TAB X</u></p> | <p>Dr. Jeanne L. Brand
Dr. Roger W. Dahlen</p> |
| <p>XV. ADJOURNMENT</p> | | <p>Dr. S. Richardson Hill, Jr.</p> |

**DEPARTMENT OF HEALTH, EDUCATION,
AND WELFARE**

**NATIONAL INSTITUTES OF HEALTH
NATIONAL LIBRARY OF MEDICINE**

BOARD OF REGENTS

**MINUTES OF 63RD MEETING
JANUARY 24-25, 1980**

**BOARD ROOM
NATIONAL LIBRARY OF MEDICINE
BETHESDA, MARYLAND**

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE

THE BOARD OF REGENTS OF THE NATIONAL LIBRARY OF MEDICINE

Minutes of Meeting 1/ 2/

January 24-25, 1980

The Board of Regents of the National Library of Medicine was convened for its sixty-third meeting at 9:00 a.m. on Thursday, January 24, 1980, in the Board Room of the National Library of Medicine, Bethesda, Maryland. Dr. S. Richardson Hill, Jr., Chairman of the Board of Regents, and President of the University of Alabama in Birmingham, presided. In accordance with P.L. 92-463 and the Determination of the Director, NIH, and as announced in the Federal Register on December 26, 1979, the meeting was open to the public from 9:00 a.m. to 5:00 p.m. on January 24, and from 9:00 a.m. to 11:00 a.m. on January 25, and closed from 11:00 to 11:30 a.m. on January 25 for the review, discussion and evaluation of grant applications. A Board roster is enclosed under Attachment "A."

Board members present were:

Dr. Nicholas E. Davies
Dr. Emmet F. Ferguson, Jr.
Dr. S. Richardson Hill, Jr.
Dr. Edward J. Huth
Dr. Doris H. Merritt
Dr. Cecil G. Sheps
Dr. John L. Townsend
Mr. James F. Williams II
Ms. Martha E. Williams

Alternates to the Board members present were:

Dr. Faye G. Abdellah, representing Dr. Julius B. Richmond
Brig. General William H. Greendyke, representing Lt. General Paul W. Myers
Mr. James M. Hahn, representing Dr. Donald L. Custis
Col. John C. Richards, representing Lt. General Charles C. Pixley
Rear Admiral Henry A. Sparks, representing Vice Admiral Willard P. Arentzen

Unable to attend

Dr. Ismael Almodóvar
Dr. Eloise E. Clark
Mr. William J. Welsh

1/ For the record, it is noted that members absent themselves from the meeting when the Board is discussing applications from their respective institutions (interpreted to mean the entire system of which a member's institution is a part) or in which a conflict of interest might occur. Only when an application is under individual discussion will the Board member absent himself. This procedure does not apply to "en bloc" actions.

2/ The Board of Regents, when considering the extramural programs of NLM, also constitutes and serves as the National Medical Library Assistance Advisory Board.

National Library of Medicine staff members attending this meeting included:

**Dr. Martin M. Cummings, Director
Mr. Kent A. Smith, Deputy Director
Dr. Harold M. Schoolman, Deputy Director for Research and Education
Dr. Ernest M. Allen, Associate Director for Extramural Programs
Mr. Philip D. Amoruso, Executive Officer
Mr. James W. Barry, Deputy Associate Director, LO
Mr. Harry D. Bennett, Director for Computer and Communications Systems
Dr. Lionel Bernstein, Director, Lister Hill National Center for Biomedical Communications
Dr. John Blake, Chief, History of Medicine Division, LO
Dr. Jeanne L. Brand, Chief, International Programs Division, EP
Mr. Arthur J. Broering, Deputy Associate Director for Extramural Programs
Dr. William G. Cooper, Associate Director for Planning
Miss Mary E. Corning, Assistant Director for International Programs
Dr. Roger W. Dahlen, Chief, Division of Biomedical Information Support, EP
Mr. Benjamin Erdman, Deputy Director, LHNCBC
Mr. Charles Farmer, Director, NMAC
Dr. Henry M. Kissman, Associate Director for Specialized Information Services
Dr. Joseph Leiter, Associate Director for Library Operations
Mrs. Grace McCann, Chief, Bibliographic Services Division, LO
Mr. Robert B. Mehnert, Chief, Office of Inquiries and Publications Management
Dr. A. Donald Merritt, Chief, Health Professions Applications Branch, LHNCBC**

Others present included:

**Dr. Thomas E. Malone, Deputy Director, NIH
Dr. Richard A. Farley, Deputy Director for Technical Information Systems, Science
and Education Administration, Department of Agriculture
Mrs. Ileen E. Stewart, Executive Secretary, Special Study Section, DRG, NIH
Mr. Alfred R. Zipf, Executive Vice President and Senior Administrative Officer,
Bank of America, San Francisco**

Members of the public present:

Mr. Jeff Christy, Reporter, "The Blue Sheet"

I. OPENING REMARKS

Dr. S. Richardson Hill, Jr., Chairman, welcomed the Regents, ex officio members, alternates, consultants, and guests to the 63rd meeting of the Board of Regents. He noted that Dr. Ismael Almodovar and ex officio members Dr. Eloise E. Clark and Mr. William J. Welsh would be unable to attend.

II. REMARKS BY THE DEPUTY DIRECTOR, NIH

Dr. Thomas E. Malone recounted some of the important issues that influenced NIH in the seventies. Among these are the transfer of research findings to health care settings, the emphasis on prevention, such ethical imperatives as human experimentation, privacy, fraud and abuse, etc., and the greater involvement of women and minorities in policy setting at NIH. The eighties hold in prospect an increase in the impact of inflation on biomedical research. NIH will not be able to maintain a level research activity without sizable budget increases that keep pace with inflation. Dr. Malone cited a recent report of the National Research Council that concluded that the academic research system is consuming its capital and that the grace period during which the system could operate efficiently on earlier capital investments is running out. Increasing costs and declining enrollments--trends that will be exacerbated in the eighties--have universities caught in a vise. Duke University, for example, is studying the severe reduction or complete elimination of its department of education, the department of physical education and recreation, the marine laboratory, school of nursing, school of forestry, and the department of sociology. A researcher at the Brookings Institution estimates that between 200 and 300 institutions of higher learning will close over the next two decades. The eighties will be a difficult period, Dr. Malone said, both at NIH and in the academic research community. The increasing demands made on NLM and the resources that will be necessary to respond to these demands were forcefully described to senior NIH staff by Dr. Cummings and Board members Dr. Hill and Mr. Williams at last week's Forward Planning Session.

NIH is taking a number of steps to meet these challenges. The formulation of a set of Health Research Principles, initiated in 1978 by former HEW Secretary Califano, will be sent to Congress this summer. HEW Secretary Harris has endorsed the process. It is hoped that the document embodying these principles and strategies will be used by the Congress in determining future appropriation of funds for health research in HEW. In addition, NIH Director, Dr. Fredrickson is attempting to bring stability to funding basic research by setting a level number of projects to be supported by NIH each year--about 5,000. Although this does not directly take into account the needs of NIH service components, by protecting a level base of research NIH hopes to be able to increase the resources available to service organizations like NLM. The guidance of advisory councils, such as the Board of Regents, will assume greater importance than ever as NIH components become increasingly involved in setting priorities for limited resources. Indeed, there should be a greater involvement of the entire medical research community--scientific and administrative--in resolving problems in research planning and setting priorities.

Dr. Malone concluded by outlining some of the great advances in biomedical research that were witnessed in the seventies. These range from knowledge gained in basic research to improvements in the quality of life resulting from research. Specific fields mentioned by Dr. Malone were genetics and gene therapy, DNA, improvement in cancer survival rates, decline in heart disease and stroke, control of epilepsy, and new vaccines for infectious diseases. The excellent biomedical establishment that achieved these advances must be protected. Much work remains to be done, especially in such problem areas as harmful chemicals in the environment, nutrition, and increases in certain forms of cancer. A balanced approach is necessary to meet these challenges of the eighties.

Following Dr. Malone's presentation, Dr. Hill applauded the commitment by NIH to be mindful of the needs of service components such as NLM. Dr. Huth noted that NLM, through the Lister Hill Center, has an important research responsibility and that this, like NIH's other research activities, must be protected. The Center can play an important role in assisting NIH disseminate research results. Dr. Townsend said that although NIH is "aware" of the importance of NLM's services to the biomedical community and acknowledges a need for more resources for NLM, he would like to hear a firmer commitment on the part of NIH for increased NLM funding. Dr. Malone reiterated that NLM's needs were ably and forthrightly presented and sympathetically received at the recent Forward Planning Session. He also urged that the Regents, collectively as an advisory council and individually as leading members of the professions, make known the needs and priorities of the Library.

III. CONSIDERATION OF MINUTES OF PREVIOUS MEETING

The Board of Regents approved the minutes of the October 4-5, 1979, meeting.

IV. DATES FOR FUTURE MEETINGS

The Board will meet next on May 22-23, 1980. The afternoon of the first day of that session will be devoted to the dedication of the Lister Hill Center Building. The dates of October 9-10 were set for the following meeting and January 29-30, 1981, were the dates tentatively selected for next winter's meeting.

V. REPORT OF THE DIRECTOR, NLM

Dr. Cummings congratulated Dr. Abdellah on the selection of a book she co-authored, Better Patient Care Through Nursing Research, as Nursing Book of the Year. He also brought to the attention of the Regents the Library's 1979 annual report. Mr. Thomas Reed, recently selected as the NLM Personnel Officer, was introduced to the Board.

The Director described as unprecedented the accumulation of the information resulting from scientific advances such as those mentioned by Dr. Malone. This information is a resource critical to the nation's well-being and one of the great strengths of our society. It is of little use, however, unless we have rapid access to the books, journals, and audio-visual materials that contain this information. A society must have effective access to the body of knowledge in its collected records, or it is in danger of regressing. American medicine is strengthened by having organized its library and information resources into a coherent national network. There must be continued support for this activity, however, or the system will inevitably deteriorate. Although NLM has pioneered in applying modern methods to information-handling, it now has the opportunity to adapt the new communications technologies developed over the past decade to provide even higher levels of information services. To do this, however, NLM will have to solve the dilemma of how to apportion budget and personnel resources between the research needed to adapt these technologies and the resources needed to maintain our labor-intensive information services to the biomedical community. It is important not to succumb to the temptation to sacrifice the latter for the former.

In large measure, the services provided by NLM have been successful because we have an intense interest in the information-seeking characteristics of our users. NLM has close relations with the health professional community that it serves. In this regard, a recent

study at the University of Alabama in Birmingham on the information habits and needs of health professionals provides insights that can be useful for NLM. Dr. Cummings reviewed some of the findings of the study (published in JAMA, January 11, 1980). The study revealed that the medical literature was the most important source of information, that journals were the most frequently consulted form of the literature, and that NLM's Index Medicus (49%) and MEDLINE (24%) were frequently used by the health professionals polled in the study. The study showed, however, that Abridged Index Medicus, designed for small hospitals and individual practitioners, was seldom used (1%).

Dr. Cummings next reviewed the status of the Library's budget and personnel ceilings. The 1981 budget is essentially unchanged from 1980's \$44 million. As a percent of the total NIH R & D budget, however, NLM's budget has declined from 2.3% in 1968 to 1.4% in 1978. At the last Regents' meeting, the Board prepared a resolution expressing concern about the low personnel ceiling imposed on NLM. The Secretary's office has not yet replied to that resolution, and NLM still is restricted to an administrative ceiling of 468 positions (versus the 495 positions in its Congressional authorization).

The Director reported that workloads in several of NLM's public services have reached a plateau. NLM does not know yet whether this leveling off reflects a temporary aberration in demand or indicates that NLM has reached the limit of its ability to respond to requests for labor-intensive services. NLM's computer-based services, however, continue to climb. The number of computerized searches in FY 1979 exceeded 1.4 million and the number of U.S. institutions belonging to the MEDLARS/MEDLINE network is over 1000. Because of computer limitations, NLM has imposed a moratorium on accepting new institutions in the network. This will be discussed in more detail later in the program.

Dr. Huth commented that the Alabama study confirms other data he has seen about the primacy of medical literature as an information source for health professionals. Not much is known about the purposes to which health practitioners put this information, however. This would be an appropriate area for future Lister Hill Center research. Mr. Williams expressed concern about the effects of the moratorium on MEDLINE centers on young physicians working in nonurban areas.

Dr. Cummings also reported that the request to enlarge the Board from 10 to 13 appointed Regents has been approved by the Department and that this proposed change will be sent to the relevant Congressional committees for their consideration and action. The Director also reviewed the program for the dedication of the Lister Hill Center Building on May 22, 1980.

Following Dr. Cummings' presentation, Deputy Director Kent Smith reported on the White House Conference on Library and Information Services, held November 15-19, 1979. Various state conventions and other sources submitted about 3000 resolutions for consideration of the 673 voting delegates. Through the INQUIRE program NLM created a computerized system for the delegates to access the resolutions. Although several of these preliminary resolutions were of interest to NLM (such as those proposing that NLM become involved in public health education), none of these concerns emerged in the final resolutions. The Conference was divided into five themes, which helped bring order to the large number of suggested resolutions. Most of the 65 final resolutions passed by the Conference are broad in scope. Mr. Smith cited several of interest to NLM, including one for a national periodicals system and a national lending library, and one calling for full Federal funding of the various library authorizations (including the National Library of Medicine).

Dr. Harold M. Schoolman, Deputy Director for Research and Education, reported on efforts to establish a National Periodicals Center. The establishment of such a Center has been proposed by the National Commission on Libraries and Information Services (NCLIS) and embodied in legislation passed by the House of Representatives and awaiting Senate consideration. Dr. Schoolman attended a recent meeting in Chicago, sponsored by NCLIS, to devise a strategy on how to promote passage of the legislation and set up the Center. The participants could not agree, however, on several basic issues. It was felt by many that what is needed is not a National Periodicals Center (a lending facility with some 60,000 periodical titles), but a National Periodicals System that would make use of existing resources and would add needed components. Proponents of the legislation as passed by the House argued that it is important to enact the basic "corporation," with its authorized functions, and later work out the details on just what form the organization should take. The NCLIS Ad Hoc Advisory Group stated at the meeting that they would encourage passage of the bill by the Senate. This declaration was accepted by the participants but there remains a great divergence of opinion, and it is uncertain how smoothly Senate action will proceed.

VI. LISTER HILL CENTER PROGRAM REVIEW

Dr. Lionel Bernstein, Director of NLM's Lister Hill National Center for Biomedical Communications, reported on a review of the LHC's activities by an ad hoc external group of experts on October 10-12, 1979. LHC's programs have undergone several reviews in recent years, including a Regents' Subcommittee review in August 1978 and one by three members of the NIH Board of Scientific Directors. A request was sent to the HEW Secretary in January 1979 for permission to establish a Board of Scientific Counselors at NLM to give policy guidance to the Library's research programs. That request now awaits action in the Office of Management and Budget. In the absence of a formal review mechanism, LHC staff identified a number of significant issues for review by an ad hoc group of outside consultants who met at NLM last October. The summary of that meeting is in the material already distributed to the Regents. The Board's LHC/NMAC Subcommittee met January 23 to review this summary and to discuss it with LHC staff.

Following Dr. Bernstein's presentation, Dr. Cecil G. Sheps commented on the potential of the Center's Knowledge Base Development Program. This is a very exciting activity, but it is a long-term effort and will be expensive. In addition to such specific programs, however, it is important for the Lister Hill Center to monitor what is going on in the general field of biomedical communications. Dr. Edward J. Huth noted that the Center's Knowledge Base Development Program involves the Library in applying value judgments to the information contained in the literature. Dr. Huth said he supports the Lister Hill Center's efforts to establish a filter for information on specific important topics that are selected for the Knowledge Base Development Program. It is important to remember, however, that the Center's purpose in developing knowledge bases is only to demonstrate the feasibility of this and not to operate permanent systems. Dr. Bernstein agreed that the Knowledge Base Program is indeed a long-term effort. There are many problems yet to be addressed before the knowledge bases can be made available to the health community at large. Dr. Bernstein, replying to a question from Dr. Abdellah, confirmed that the Knowledge Base Program and other Lister Hill Center programs are not being designed specifically for physicians but will have the potential to serve many kinds of health professionals.

VII. COMPUTER PROCUREMENT

Mr. Kent A. Smith, Deputy Director, reviewed NLM's efforts over the last six years to procure a new computer system. At the present time the procurement is stalled because UNIVAC, one of the offerors, protested NLM's action in declaring that UNIVAC had made unauthorized changes to the ELHILL software which violated the validity of benchmark testing and thus was not responsive to the "Request for Proposal" (RFP). Last October the Government Accounting Office upheld UNIVAC's protest and ordered that "the Protestor (UNIVAC) be permitted to benchmark its proposed system or, if NLM finds that the RFP has failed to state its minimum needs, the RFP should be amended to reflect these needs and offerors should be permitted to submit revised proposals." NLM is faced with three choices, Mr. Smith said: (A) Permit UNIVAC to conduct its benchmark with its program changes; (B) Amend the RFP to reflect clearly NLM's requirements; or (C) Cancel the procurement and develop a new RFP based on revised needs for the late 1980s (MEDLARS III). Mr. Smith briefly discussed the advantages and disadvantages of each. Regardless of which alternative is selected there will be a lapse of at least two years before new computers can be installed--in the case of the third option this may extend to four years. For NLM to continue to provide services in this interim it will be necessary either to enhance the existing system or to restrict usage.

After careful review, Mr. Alfred R. Zipf, consultant, recommended to the Board that the procurement action be started anew (option C, above). The requirements now being formulated for MEDLARS III will result in a computer workload requirement approximately twice that called for in the present RFP. It would be a mistake, Mr. Zipf said, to fight to revive the present procurement only to install a system that will not be adequate to support MEDLARS III later in the 1980s. In Mr. Zipf's opinion NLM is now taking the proper steps to ensure adequate performance of the present system over the next few years. The current moratorium on accepting new online centers is justified, and NLM should acquire additional equipment to expand the capacity of the present system. These two steps will enable NLM to get through the next few years.

Mr. Harry Bennett, Director for Computer and Communications Systems, outlined projected workload requirements. Present capacity will see NLM through one more year, after which augmentation of the system will be necessary. Steps already taken include rescheduling in-house use of the system by NLM staff, imposing a moratorium on new data bases (there are currently about 20), and increasing the amount of traffic directed to the backup computer at SUNY (Albany). Additional copies of ELHILL (the retrieval program) will be mounted at NLM and SUNY to increase the number of online users who can simultaneously access the system. Finally, there is equipment that should be added to the present system to improve capacity by about 10 percent.

Mr. Smith next discussed NLM's proposal to institute a priority system for users of NLM's online services. Priority 1 (primary users) would include patient care facilities, health professional educational institutions, organizations primarily engaged in health research or health protection activities, and Federal and state health agencies. Priority 2 users are "conditional users" that would have access as long as NLM's computer capacity was adequate to maintain high standards of service. If the system became overloaded, Priority 2 users would be temporarily taken off the network. Among this group would be other educational institutions with health or information-science programs, local government agencies and other federal and state agencies not in Priority 1, and societies, foundations, and other organizations with secondary health responsibilities. A committee of NLM staff would review new user applications to determine in which category they would be placed. Mr. Smith asked that the Board advise the Library as to (1) the desirability of establishing priority users and (2) what course should NLM take in the computer procurement.

The Regents discussed a number of issues related to the problem of computer overload. Among these were: the possibility of using a contractor's computers to provide services, expanding SUNY's capacity, and the feasibility of mounting abridged data bases. Dr. Cummings reported that NIH's Division of Computer Resources and Technology (DCRT) may be disposing of two 370/168 computers that NLM could acquire, but there is much red tape associated with NLM acquiring computers even from another NIH component. This possibility is being actively explored, however.

After extended discussion, the Board of Regents voted unanimously to recommend to the NLM Director that he select option (C)- to initiate a new procurement action and to take steps to augment the existing system. The text of this resolution is in Attachment B.

The Board next considered the proposed priority system to classify users of NLM's online services. There was discussion about the definitions to be used in determining priority. Professor Williams suggested the possibility of allowing Priority 2 users to have access to the system in off-hours (e.g., 9 p.m. to midnight). Dr. Cummings said this was an interesting idea that NLM staff would examine. The Regents endorsed by unanimous vote the principle that NLM set priorities for users, the details to be worked out at the discretion of NLM staff. The resolution embodying this vote is in Attachment C.

VIII. DISTRIBUTION PLAN FOR AUDIOVISUAL MATERIALS

Dr. Harold M. Schoolman, Deputy Director for Research and Education, briefed the Regents about the move of the National Medical Audiovisual Center to Bethesda and the plans for resuming the motion picture loan program. Mr. Charles Farmer, who has been Director of NMAC over the last year, will be retiring this spring. Dr. William G. Cooper, NLM Associate Director for Planning, will serve as Acting Director of the Center. The organization and functions of NMAC will be moved intact to Bethesda, and the Board of Regents will review in the coming months how the Center's programs will be implemented in their new setting. Dr. Schoolman then briefly discussed the present structure and functions of NMAC.

Of special concern is the future of the motion picture loan program, an advance booking service provided without charge to the health-science community. This program was temporarily suspended in December 1979. At present there are some 900 titles, with an average of 20 prints per title. Demand in recent years has been about 50,000 requests per year. Present plans call for a resumption of the loan program in mid-February, to be operated by a contractor in Atlanta. NLM will evaluate the program over the next nine months and make a recommendation to the Board in October 1980 about the future of the loan program.

The Regents formally thanked Mr. Farmer for his outstanding performance as Director of the Center and offered a special citation:

"The NLM Board of Regents wishes to extend its deep appreciation for the outstanding leadership and performance that Mr. Charles Farmer has demonstrated as the Director of the National Medical Audiovisual Center. Mr. Farmer assumed this responsibility at a difficult time of transition for NMAC pending its move to Bethesda. He accepted this charge with enthusiasm and through his leadership maintained high employee morale and productivity. The Board has a profound sense of gratitude and appreciation for Mr. Farmer's sustained record of dedicated and loyal service and extends its best wishes in his retirement."

IX. REVIEW OF NLM RESEARCH PLAN

Dr. William G. Cooper, Associate Director for Planning, reviewed the NLM Research Plan for 1982-1984. The Plan was reviewed by NIH senior staff last November, modifications were subsequently made, the revised plan was reviewed with Dr. Fredrickson at a meeting on January 16, and a final version is now being prepared to be incorporated into the overall NIH Research Plan. Elements of NIH's Research Plan will eventually be included in HEW's Health Research Principles to be used by the Department in guiding research efforts and in setting priorities.

Dr. Cooper briefly described the four emphases in the NLM Plan as (1) improvement of information transfer for scientists and practitioners, (2) establishment of a research center of excellence in the new Lister Hill Center Building, (3) expansion and improvement of library services, and (4) improvement of information services in toxicology and environmental health. These objectives will require increased attention to a number of ongoing NLM programs.

The first objective, improvement of information transfer, will require the expansion of the extramural research grant program in such areas as computers in medicine, research career development awards, and new investigator awards. The second objective will require emphasis on the programs of the Lister Hill Center and the National Medical Audiovisual Center. The development of MEDLARS III will play a major role in expanding and improving library services--the third objective. The fourth, improving information services in toxicology, will require emphasis on the Chemical Structure and Nomenclature System and the National Toxicology Program.

Following Dr. Cooper's presentation, Dr. Hill and Mr. Williams, who attended Dr. Fredrickson's January 16 briefing in their role as Regents, reported on their reactions to that meeting. Dr. Hill was pleased by Dr. Fredrickson's keen interest in NLM's Research Plan. Although budget increases in the coming years will be limited, the NIH Director said that NLM should prepare a package clearly stating NLM's needs and priorities in research so that he could carry it to PHS and HEW and strongly support it. Dr. Fredrickson admitted, Dr. Hill said, that it was difficult to fit NLM programs into NIH's research-oriented criteria, and that in recent years NLM's budget had not kept pace with increases in other NIH components. Mr. Williams said that his comments at that meeting centered around the labor-intensive nature of many of NLM's activities, and how dependent U.S. medical libraries were on the work done by NLM. He also pointed out to Dr. Fredrickson that medical libraries in academic settings account for three to four percent of the academic research budget, much higher than NLM's 1.4 percent in relation to NIH. Dr. Doris Merritt, who also attended the planning briefing as a member of Dr. Fredrickson's staff, emphasized Dr. Fredrickson's great interest in intramural research. She said that the NIH Director is looking forward to a concise, well-written, exciting plan of research from NLM which he can enthusiastically support downtown.

X. REGIONAL MEDICAL LIBRARY PROGRAM*

Mr. Kent Smith described the reorganization of the RML Program within NLM. There is now one central office, headed by Mr. Sheldon Kotzin, that is responsible both for the national program and the activities of the Region IV Office (NLM serves as the Regional Medical Library for Region IV--the Mid-Atlantic area). This change should bring stability

*Mr. James F. Williams II, Medical Librarian at the Region V Regional Medical Library, absented himself during the presentations and discussions relating to the RML program.

to the program and create the necessary close relationship between the national program and NLM's own regional responsibilities. Mr. Smith said that Region IV has begun a decentralized system for filling interlibrary loan requests. High-use materials, which should be available locally, will no longer be filled by NLM. Interlibrary loans that cannot be filled at the community level will be referred to one of the resource libraries in the Region, with the RML at NLM providing backup service for the more difficult and esoteric materials. Consistent with the national plan, there will be a charge (not to exceed \$5) for loans filled by resource libraries. However, three medical school libraries in the District of Columbia have chosen not to participate as resource libraries in the Region IV network. Therefore, the following policy has been adopted:

Federal health-related institutions in the Washington metropolitan area may continue to submit interlibrary loan requests directly to NLM at no charge. One exception is that the Uniformed Services University of the Health Sciences (USUHS) will serve as the resource library for all Department of Defense libraries in the Washington metropolitan area. USUHS will refer unfilled requests to NLM for processing at no charge. All other institutions in this area will be charged \$4.00 per filled loan.

Following Mr. Smith's presentation, Mr. Kotzin reviewed the status of competitive bidding for the Regional Medical Library contracts. Actions for Regions I, VII, and X are complete: contracts for Region I (New England) and Region X (Pacific Northwest) were awarded to the incumbent institutions, Region VII (Midwest) was awarded to the University of Illinois at the Medical Center (Chicago) in competition over the incumbent John Crerar Library. Contract proposals for Regions IX (South Central) and XI (Pacific Southwest) were received only from the incumbents; review of these proposals is now being completed. Proposals from Region II, III, and VIII are now beginning review; Regions V and VI will undergo competition in FY 1981. The technical consultants reviewing the proposals have decided that a site visit will be necessary for the uncontested proposal from RML II (New York Academy of Medicine); proposals from incumbents in Regions III and VIII, also uncontested, will not require site visits.

Dr. Merritt reported that she and Dr. Abdellah met yesterday to make recommendations on the proposals and the reports of the technical evaluation team relating to Regions IX and XI. They recommended that awards be made to the respective incumbent institutions (University of Texas in Dallas and UCLA) pending satisfactory completion of budget negotiations with staff.

Mr. Kotzin finished his review by presenting a series of slides that detailed the budget allocations within the Regions for direct services, other services, administration and planning, and indirect costs. Across the network, 57% of the money goes for the direct services (mostly for document delivery), 7% for other services, 21% for administration, and 15% for overhead and indirect costs. Thirty-five individuals are supported at the 11 RML offices. In 1980 special emphasis is being placed on evaluation efforts. NLM will have a comprehensive evaluation under way later this spring that will focus on centralized versus decentralized services, optimum regional boundaries, impact of technology and advances in networking, and the effect of cost-sharing plans on document delivery. Other initiatives for 1980, Mr. Kotzin said, are evaluations of the costs and benefits of each of the basic programs of the network, a statement of short-term goals and objectives for the RML network, a measurement of the potential impact on the network of MEDLARS III and Lister Hill Center programs, the establishment of a standardized document delivery cost-sharing plan, determination of the relationship between user needs and Index Medicus titles held at the RMLs, and use of Region IV (NLM) to test new services that can then be applied throughout the network.

XI. REPORT OF THE ASSOCIATE DIRECTOR FOR EXTRAMURAL PROGRAMS

Dr. Ernest M. Allen asked Mr. Kenneth Carney, Deputy Executive Officer, to report on the "common sense" changes to the NLM Regulations. Mr. Carney stated that the regulations have been revised as part of the Department's effort to simplify the language of all HEW regulations. Included in the revisions are the general NLM regulations concerning access to the collection and related services, as well as NLM's grant programs. No substantive changes, other than language simplifications, were made. The Board concurred with the "common sense" revisions to the NLM Regulations.

Dr. Allen then followed with a brief account of the Fiscal Year 1980 Extramural Grants budget, concentrating particularly on the Computers-In-Medicine Program and its companion, the Training Grant Program in Health Sciences and Computer Technology. He proposed a plan to assure funding for three years (reduction from the five years recommended) of two new and two renewal training grants which would use \$300,000 of the \$1,300,000 earmarked for the Computers-In-Medicine Program. This use of the funds would be entirely consonant with the intent of Congress and would keep the Training Grant Program at the current level. Dr. Allen expressed his enthusiasm for the entire Computers-In-Medicine Program, noting that there is much interest in this field as evidenced by the large response to the latest program announcement.

In conclusion, Dr. Allen proposed a change in the priority cutoff of the Improvement Grant Program from 175 to 200 in order to assist small community hospital libraries. This would mean that instead of eight single institutions, fourteen single institutions and six consortia (with 46 participating hospitals) will be funded in FY 1980. Dr. Allen asked for the Board's concurrence of his proposals in principle, after which the Director of the Library would make a final decision. The Board of Regents endorsed the proposals in principle.

Dr. Abdellah, a member of the Extramural Programs Subcommittee of the Board, noted that at its meeting on January 23 the Subcommittee endorsed the proposals enthusiastically.

Board Operating Procedures

As required annually, Dr. Allen presented for review the Board Operating Procedures - "Guidelines for Adjustments by Staff in Time or Amount of Grant Award" - which were adopted originally in 1964. The Board reaffirmed the guidelines without revision (Attachment D).

Grant Support for Continuing Medical Education

In response to questions raised by Dr. Sheps at the October meeting regarding this program, Dr. Roger W. Dahlen, Chief, Division of Biomedical Information Support, EP, presented a brief summary of NLM's research grant support for continuing medical education. Three research projects have been awarded in this field, two of which are still active. NLM has funded approximately one million dollars for continuing medical education in the last five years, representing about two percent of EP's research funds. Applications in this field have been neither encouraged nor discouraged. It is the opinion of Library staff that the extent of support in this area is adequate and no change is anticipated at this time. Commenting on the proposals funded up till now, Dr. Sheps said the quality of the theory that lay behind each of these proposals was singularly unimpressive. If any part of NIH is going to support research in this field, there ought to be some sound theoretical base, he emphasized. Dr. Townsend voiced his agreement and noted that continuing education is almost forced upon physicians, with seldom an evaluation to determine whether continuing education really has the desired impact on physicians and ultimately on patient care. Dr. Sheps believed that the Library does have a contribution to make in the field of continuing education, and

that it would be very helpful if NLM staff would carefully review this program and come back to the Board with recommendations on how it should be modified. Dr. Townsend was in favor of shifting support from continuing education and amending the current structure of the program. Dr. Allen accepted the Board's suggestions and an obligation to study the Library's Continuing Medical Education Program in light of these criticisms and to present findings to the Board at a later meeting.

Grant Support for the History of Medicine Program

Also in response to questions raised by Dr. Sheps at the October meeting, Dr. Jeanne Brand, Chief International Programs Division, EP, gave a detailed review of the present and past trends of NLM's support in this field. Since the initiation of NLM's grant programs under the Medical Library Assistance Act, the Library has funded 70 projects in the history of medicine, totalling just over \$5.5 million. This represents about 12.5% of the funds for NLM Extramural Programs, excluding the RML Program. The Library is today the principal supporter in the Public Health Service of this field. Using slides, Dr. Brand continued with a detailed description of the different types of awards made in this program.

Dr. Sheps commended Dr. Brand on her excellent report and stated that more needs to be done in this field, especially since NLM seems to be the only significant source of support at the present time. Critical reviews, he thought, should not compete with projects in the history of medicine, since it is much easier to receive a higher score for a critical review than for a proposal in the history of medicine. Some thought should possibly be given (1) to making allocations so that this competition will not exist, and (2) to the initiation of a training program in the history of medicine. Dr. Sheps pointed to the very small number of medical schools that have qualified faculty devoting time to teaching the history of medicine and found this a very serious failing. He asked that EP staff develop a general statement about what historians in this field believe are the important things to be done in the next decade--not with the assumption that NLM do all--but at least to determine what NLM's role might be in terms of level of support and priorities. And then, perhaps, solicit other interested agencies to give support where NLM leaves off.

Dr. Cummings agreed with Dr. Sheps that the health professional education community of the nation does not sufficiently support the study or teaching of the history of medicine. Since this is so, however, the training of professionals in the history of science and medicine may lead to frustration because there is no career prospect. Whether reestablishing the past training program at the Library would lead to a long-term gain would have to be a critical element of any study.

XII. EVALUATION OF TRAINING GRANT PROGRAM IN HEALTH SCIENCES AND COMPUTER TECHNOLOGY

Dr. Roger W. Dahlen, Chief of the Division of Biomedical Information Support, EP, presented a report on the creation and present status of this program. In 1968 the National Library of Medicine issued a contract with the Association of American Medical Colleges (AAMC) to provide recommendations for the implementation of a biomedical communications network by the Lister Hill Center. An AAMC committee, chaired by Dr. Eugene A. Stead from Duke University School of Medicine, submitted its report to the Library in 1971 containing approximately 50 recommendations. The Board of Regents at its meeting in November 1971 considered the report and amalgamated the recommendations into four major areas, including one regarding the development of manpower for computer applications in medicine. The Extramural Programs had the mechanisms to support training activities and readily assumed a major responsibility for fulfilling this charge. The ultimate goal of the program was to promote

the complete and effective integration of computer technology into all phases of clinical medicine- -teaching, practice, and research. The most practical projects to be supported would be those designed for teachers or potential faculty members in the health sciences.

The first five awards were made in 1972. Currently NLM is supporting ten ongoing training grants. NLM expends about \$1.5 million annually on this program, which amounts to approximately 15% of the total EP funds. Dr. Dahlen said that an evaluation of the program at this time to measure the impact on the individual trainees, the training institutions, and the employing institutions is appropriate and necessary. Questions that need answers are:

- Has the program been fulfilling the basic objectives for the various training grants?
- Has it met NLM's objectives?
- Are the original objectives still valid?

On January 18, 1980, a group of consultants and staff met to plan an evaluation of the program. The next step is a meeting of the training program directors in May to discuss their involvement in the evaluation.

Following Dr. Dahlen's presentation Dr. Schoolman suggested that any evaluation should first determine exactly what the Stead Committee was recommending and what the Board was endorsing ten years ago. The second step should be to ascertain whether or not those objectives have been accomplished and if they are still valid. It would also be desirable to have an internal self-assessment built into the funded training programs themselves.

Dr. Doris Merritt's comments were related to the Board by Dr. Allen since she could not attend the second day of the meeting. It was her opinion that the step toward evaluating the training grant program was desirable and that some dividends might be derived from it that could be applied across the board at NIH. The involvement of the program directors of the training grants was a proper first step, but staff should begin without delay to review possible changes in overall objectives and justifications of the program. Dr. Abdellah pointed out that an evaluation at this time is important since the Department is again looking at training programs and it will be very helpful in terms of guidance in matters of policy directions at the Department level. She also noted that with the establishment of the Department of Education the evaluation study becomes even more important since the Board might be instrumental later in pointing out why this kind of training should be continued by the National Library of Medicine.

XIII. OTHER BUSINESS

The Chairman appointed a Nominating Committee for the selection of next year's Board chairman, consisting of Dr. Abdellah, Chairman, Dr. Clark, and Colonel Richards.

MEETING CLOSED FOR THE REVIEW OF GRANT APPLICATIONS

XIV. REVIEW OF PENDING APPLICATIONS

Before proceeding with the consideration of pending applications, Dr. Brand informed Board members of confidentiality and conflict-of-interest procedures and reminded them to sign, at the conclusion of the grant review, the statement certifying that they had not participated in the discussion of any application where conflicts of interest might occur.

The Board concurred with the recommendations of the Extramural Programs Subcommittee. A total of 93 applications was reviewed, of which 45 were recommended for approval, 40 for disapproval, and eight for deferral. Grant applications recommended for approval by the Board are listed in the summary actions (Attachment E). Interim actions taken by EP staff since the October 1979 meeting of the Board were noted.

XV. ADJOURNMENT

The meeting was adjourned at 11:30 a.m., Friday, January 25, 1980.

Wednesday, January 23, 1980, 2:00 to 4:15 p.m.
(EP Subcommittee - List of Attendees under Attachment F)
Wednesday, January 23, 1980, 4:00 to 6:00 p.m.
(LHC and NMAC Subcommittee - List of Attendees under Attachment G)
Wednesday, January 23, 1980, 4:00 to 6:00 p.m.
(Subcommittee for the Review of Competitive RML Contract Proposals)
(List of Attendees under Attachment H)


ACTIONS TAKEN BY THE BOARD OF REGENTS


1. The Board voted unanimously to recommend to the NLM Director that he terminate the present action to purchase a new MEDLARS computer system, that he begin a new procurement action, and that he take steps to augment the existing system (Section VII). The resolution is in Attachment B.
2. The Board endorsed by unanimous vote the principle that NLM set priorities for users (Section VII). The resolution is in Attachment C.
3. The Board concurred with proposed changes in the language of published NLM Regulations. The changes are not substantive and reflect HEW's effort to simplify the language of government regulations (Section XI).
4. The Chairman of the Board of Regents appointed a Nominating Committee for the selection of next year's Board Chairman, consisting of Dr. Faye G. Abdellah, Chairman, Dr. Eloise E. Clark and Colonel John C. Richards.

5. The Board endorsed in principle the plan of NLM Extramural Programs staff to:
- a. Use \$300,000 of the \$1,300,000 earmarked for the Computers-in-Medicine Program to assure three-year funding for two new and two renewal training grants; and
 - b. To change the priority cutoff for the Improvement Grant Program from 175 to 200.

(Discussion in Section XI.)

I hereby certify that, to the best of my knowledge, the foregoing minutes and attachments are accurate and complete.


Martin M. Cummings, M.D. (Date)
Executive Secretary


S. Richardson Hill, Jr., M.D. (Date)
Chairman

Robert B. Mehnert
Chief, Office of Inquiries and
Publications Management

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MEMORANDUM

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
NATIONAL INSTITUTES OF HEALTH
NATIONAL LIBRARY OF MEDICINE

TO : Director, NLM

DATE: January 25, 1980

FROM : Chairman, Board of Regents, National Library of Medicine

SUBJECT: Resolution Passed by the Board of Regents of the National Library of
Medicine at its January 24-25, 1980 Meeting

The National Library of Medicine has been engaged in a procurement for a replacement of its data processing equipment since 1974. A workload projection in support of the procurement was developed for a five-year period beginning with an estimated operational time of December 1979 and continuing through the end of 1984. Because of excessive procurement delays the award of a contract and installation of the proposed system has not been accomplished to date.

If one proceeds with any of the current procurement alternatives the earliest possible time in which an operational system can be installed will be about two years from now.

In parallel with this procurement action a special task team has been developing requirements and specifications for MEDLARS III designed to last through this decade. At the present time we estimate that these specifications will be completed in approximately six months. A conservative preliminary estimate of workloads shows an increase of over 100% of that projected in the current procurement.

Based on these considerations, and on the long delays in the current procurement effort, the Board of Regents of the National Library of Medicine strongly recommends that a new procurement be initiated to reflect the projected needs of the Library and to insure that the Library obtains a data processing system which will have an acceptable life span through the 1980's. Since this will be time consuming, we believe that NLM will require enhancements to its existing computer configuration to ensure that NLM meets its obligations to the biomedical community.



S. Richardson Hill, Jr., M.D.

MEMORANDUM

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

PUBLIC HEALTH SERVICE
NATIONAL INSTITUTES OF HEALTH
NATIONAL LIBRARY OF MEDICINE

DATE: January 25, 1980

TO : The Secretary
Through: US _____
ES _____
Director, NIH _____

FROM : Chairman, Board of Regents of the National Library of Medicine

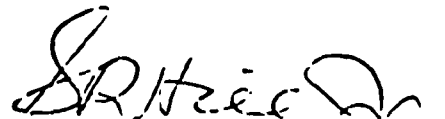
SUBJECT: Resolution on Establishment of Priorities for Online Access Passed by the Board of Regents of the National Library of Medicine

This is to inform you that the Board of Regents of the National Library of Medicine passed a resolution at its January 24-25, 1980, meeting endorsing the establishment of priorities for online access to the National Library of Medicine's data bases. This resolution was passed in accordance with the National Library of Medicine Act, Section 383(b).

The National Library of Medicine's computerized online retrieval system currently provides rapid access to over 4 million references to medical articles and other published materials. Since 1973 access to the system has grown from approximately 180 to 1,200 institutions at home and abroad. Computerized searches similarly have grown from 165,000 to over 1.4 million in 1979. This overwhelming record of high quality service is now seriously jeopardized by computer capacity limitations. The Board has recommended to the NLM Director a course of action in this regard, and I am enclosing that resolution for your information (Attachment A).

In order to effectively and efficiently allocate the National Library of Medicine's limited computer resources, management controls to restrict usage of online services to high priority health institutions should be initiated. The Board of Regents endorsed the establishment of such priorities for online access and recommends that the Director of the National Library of Medicine establish the specific priorities necessary for selective access to the online system.

Attachment B is a copy of the recommended priorities. Attachment C is a copy of the current NLM Online Services Program Policy Statement which will be revised to incorporate the establishment of priorities for online access.



S. Richardson Hill, Jr., M.D.

Attachments

PRIORITY 1 - (PRIMARY USERS)

- A. ALL DIRECT PATIENT CARE FACILITIES
- B. ALL HEALTH PROFESSIONAL EDUCATIONAL INSTITUTIONS
- C. ORGANIZATIONS PRIMARILY ENGAGED IN HEALTH RESEARCH OR HEALTH PROTECTION ACTIVITIES
- D. FEDERAL & STATE HEALTH AGENCIES NOT COVERED ABOVE BY A & B

PRIORITY 2 - (CONDITIONAL USERS*)

- A. OTHER EDUCATIONAL INSTITUTIONS WITH HEALTH OR INFORMATION SCIENCE PROGRAMS
- B. LOCAL GOVERNMENT AGENCIES AND OTHER FEDERAL AND STATE AGENCIES NOT UNDER PRIORITY 1
- C. SOCIETIES, FOUNDATIONS, AND OTHER ORGANIZATIONS WITH SECONDARY HEALTH RESPONSIBILITIES

* CONDITIONAL USERS = TEMPORARY USERS SO LONG AS COMPUTER CAPACITY CAN MAINTAIN NLM SERVICE STANDARDS

FACT SHEET

Bethesda, Maryland 20209

November 1979

NLM ONLINE SERVICES PROGRAM POLICY STATEMENT

Consistent with its legislative mandate and recommendations of the Board of Regents, the National Library of Medicine (NLM) is committed to the development and operation of a domestic online services network. The objectives of the network are to provide:

- Rapid and efficient delivery of bibliographic and other literature-based information.
- Cost effective online services complemented by efficient document delivery through participating members.
- Equal network access, to the extent practicable, while serving the basic purpose of support to health services delivery, education, and research.

I. Service Policies

A. General

The NLM exercises overall management and provides supporting services such as training and assistance to users. The Regional Medical Libraries (RML) plan and support online and network services in their regions.

B. Qualified Users

Qualified institutional users include:

1. Regional Medical Libraries and Resource Libraries.
2. Hospitals and institutions with health-science education and training programs.
3. Health-related research organizations, government agencies, universities, and library and information science schools.
4. Other organizations with health-related needs that can be accommodated within the system's capacity.

Individuals are encouraged to use the system through established institutional centers, but may apply for access codes in unusual cases.

In the case of an overload of the system, service may be limited and the addition of new users suspended by NLM management.

C. Responsibilities of Members

1. Online centers agree to send at least one individual for training in the use of NLM's online system. NLM reserves the right to waive training for qualified individuals who demonstrate significant online experience or on-the-job training.

2. Service costs may be passed on to the individual requester. Where charges are imposed, they must clearly distinguish that portion which is a result of NLM connect-hour and page costs from the charges levied by the network participants.

II. Prices

Consistent with the National Library of Medicine Act, the Board of Regents has established a domestic pricing policy permitting NLM to recover costs associated with the direct provision of services. Such costs include communications, back-up computer services, and the use fees for data bases from other organizations. The Board of Regents has delegated to the Director of the National Library of Medicine the authority to set prices at the level required to ensure effective and efficient management of the system. To the extent practicable, such costs recovered from member institutions will be independent of their geographic location.

O P E R A T I N G P R O C E D U R E S

GUIDELINES FOR ADJUSTMENTS BY STAFF
IN TIME OR AMOUNT OF GRANT AWARD

1. Staff is authorized to exercise its responsibility to negotiate downward from the Board recommendation:
 - (a) Where activities or items can be adequately accomplished at a smaller cost than that recommended by the Board;
 - (b) Where statute, regulation, or policy requires elimination of certain items of expenditure; or
 - (c) Where the applicant voluntarily restricts the scope of his project to less than that recommended by the Board.

2. Staff is authorized to exercise its judgment and responsibility for upward revision in the dollar amount of award whenever such revision is for the purpose of carrying out the objectives of the proposal within the scope recommended by the Board.
 - (a) This authorization will cover those factors which deal with administrative adjustments in budget, such as orderly termination, institution-wide salary increases, and pro-rata adjustment of budgets to accommodate changes in project period dates.
 - (b) This authorization is not to be limited to any specific set of circumstances, but extends to any adjustment of the budget that is not for the purpose of altering scientific content or scope of the project.
 - (c) There should be no arbitrary limitation, either as a dollar amount or percentage of approved grant, on staff negotiation. Rather, the purpose of the budget adjustment should be the limitation on staff authorization.

3. Staff will report all budget adjustments in excess of \$500 to the Board at the next available meeting to permit review of the effect of these guidelines. Board confirmation of each administrative action will not, however, be required.

Adopted: 11/6/64
Reaffirmed: 6/24/66
Reaffirmed and
amended: 6/20/68
Reaffirmed: 11/21/69
Reaffirmed: 11/20/70
Reaffirmed: 11/23/71
Reaffirmed: 11/21/72
Reaffirmed: 11/30/73
Reaffirmed: 12/ 6/74
Reaffirmed: 11/26/75
Reaffirmed: 1/28/77
Reaffirmed: 5/26/78
Reaffirmed: 1/26/79
Reaffirmed: 1/25/80

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL
(Arranged numerically by program)

COUNCIL DATE: JANUARY 1980

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE	APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
	1 R01 LM 03480-01		01 35,000
		NEW EDITION OF AN ATLAS OF PRIMATE GROSS ANATOMY	
	1 R01 LM 03485-01		01 48,797 02 51,514
		TWO-STAGE RETRIEVAL METHODS FOR TECHNOLOGY LITERATURE	
	1 R01 LM 03490-01		01 23,857 02 16,742
		QUALITY ASSURANCE PROPOSAL	
	1 R01 LM 03491-01		01 14,390 02 1,200 03 1,200
		COMPREHENSIVE TOXIC DINOFLAGELLATE BIBLIOGRAPHY	
	1 R01 LM 03492-01		01 11,130 02 18,900 03 7,150
		HERMANN LOTZE: MEDICAL THEORY TO NEW PSYCHOLOGY	
	1 R01 LM 03503-01	D'JAL: DE	01 41,300
		REVISION OF THE F.D.I. DENTAL LEXICON	
	1 R01 LM 03511-01		01 32,925
		MUMPS GLOBAL FILE IMPLEMENTATION ON LARGE MAINFRAMES	
	1 R01 LM 03512-01		01 25,621 02 11,608 03 14,539
		HISTORY OF CONCEPTS OF INSANITY IN ENGLAND, 1750-1890	
	1 R01 LM 03531-01		01 28,279 02 29,076
		DEVELOPMENT OF GLOSSARY OF EPIDEMIOLOGIC TERMS	

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL
(Arranged numerically by program)

COUNCIL DATE: JANUARY 1980

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE	APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
	2 R01 LM 03127-03	SWINE FLU LIABILITY AND PUBLIC POLICY	03 26,454
	2 R01 LM 03163-02	RUSSIAN MEDICINE	02 23,207 03 5,170
	1 R01 LM 03362-01	AN ANNOTATED BIBLIOGRAPHY OF SIR PATRICK MANSON'S PAPERS	01 2,750 02 2,404
	1 R01 LM 03424-01	MEDICAL AND SCIENTIFIC BOOKS IN MEDIEVAL LIBRARIES	01 14,025 02 12,780
	1 R01 LM 03462-01	THE HISTORICAL DEVELOPMENT OF NEUROPHYSIOLOGY	01 16,174 02 17,026 03 16,089
	1 R01 LM 03464-01	PUBLICATION: POSTNATAL DEVELOPMENT OF THE RAT SKULL	01 16,000
	1 R01 LM 03465-01	NAVAJO ANATOMICAL ATLAS PUBLICATION PROJECT	01 18,950
	1 R01 LM 03467-01	BODY COMPOSITION BIBLIOGRAPHY	01 19,593 02 8,663
	1 R01 LM 03474-01	THE FRENCH VIEW OF YELLOW FEVER	01 10,135 02 11,264 03 11,799

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL
(Arranged numerically by program)

COUNCIL DATE: JANUARY 1980

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNT RECOMMENDED
1 R01 LM 03539-01	OPEN PEER COMMENTARY IN THE BIOBEHAVIORAL SCIENCES	01 49,944 02 34,997 03 23,026
1 R01 LM 03544-01	DJAL: AG	01 26,488 02 20,238
1 R01 LM 03545-01	THE SELECTIVE GUIDE TO EDUCATIONAL MATERIALS ON AGING	
	REFINING THE INFORMATION SYSTEM FOR BIOETHICS	01 113,793 02 91,753 03 101,194

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL
(Arranged numerically by program)

COUNCIL DATE: JANUARY 1980

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNT RECOMMENDED
2 T15 LM 07001-06	APPLICATION OF COMPUTER TECHNOLOGY IN HEALTH SCIENCES	06 175,532 07 180,961 08 189,454 09 195,858 10 202,799
2 T15 LM 07006-06	TRAINING PROGRAM IN MEDICAL INFORMATION SCIENCE	06 174,386 07 180,346 08 186,925 09 187,525 10 188,675
2 T15 LM 07008-06	MOUNT SINAI TRAINING PROGRAM IN COMPUTERS IN MEDICINE	06 165,570 07 169,953
2 T15 LM 07023-03	BIOMEDICAL COMPUTING AND INFORMATION PROCESSING	03 164,063 04 157,946 05 163,831 06 170,186 07 176,780
1 T15 LM 07027-01	PROGRAM FOR CLINICAL DECISION MAKING	01 114,663 02 101,880 03 154,300 04 169,731 05 186,708

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL
(Arranged numerically by program)

COUNCIL DATE: JANUARY 1980

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNT RECOMMENDED
1 K10 LM 00028-01A1		01A1 37,002
	SPECIAL SCIENTIFIC PROJECT: A CRITIQUE OF EPIDEMIOLOGY	
1 K10 LM 00049-01		01 49,660
	SPECIAL SCIENTIFIC PROJECT: MEDICAL STUDENT TRAINING	02 23,859

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/
 (Arranged numerically by program)

COUNCIL DATE: JANUARY 1980

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
2 G07 LM 03147-02	CONSORTIUM IMPROVEMENT GRANT	02 24,000
2 G07 LM 03241-02	CONSORTIUM IMPROVEMENT GRANT	02 5,000
1 G07 LM 03358-01	SINGLE-INSTITUTION GRANT	01 4,000
1 G07 LM 03460-01	CONSORTIUM IMPROVEMENT GRANT	01 6,882
1 G07 LM 03475-01	SINGLE-INSTITUTION GRANT	01 4,000
1 G07 LM 03479-01	SINGLE-INSTITUTION GRANT	01 2,000
1 G07 LM 03486-01	SINGLE-INSTITUTION GRANT	01 4,000
1 G07 LM 03504-01	SINGLE-INSTITUTION GRANT	01 4,648
1 G07 LM 03506-01	SINGLE-INSTITUTION GRANT	01 4,000

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/
(Arranged numerically by program)

COUNCIL DATE: JANUARY 1980

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
1 G07 LM 03507-01	SINGLE-INSTITUTION GRANT	01 4,562
1 G07 LM 03508-01	SINGLE-INSTITUTION GRANT	01 4,000
1 G07 LM 03517-01	SINGLE-INSTITUTION GRANT	01 4,006
1 G07 LM 03521-01	SINGLE-INSTITUTION GRANT	01 4,000
1 G07 LM 03530-01	SINGLE-INSTITUTION GRANT	01 4,000
1 G07 LM 03532-01	SINGLE-INSTITUTION GRANT	01 4,176
1 G07 LM 03534-01	SINGLE-INSTITUTION GRANT	01 4,400

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

BOARD OF REGENTS

Extramural Programs Subcommittee Meeting

January 23, 1980

ATTENDEES

Subcommittee Members Present:

Dr. Faye G. Abdellah
Dr. Doris H. Merritt
Dr. John L. Townsend
Mr. James F. Williams II
Ms. Martha E. Williams

NLM Staff Present

Dr. Harold M. Schoolman, Deputy Director for Research & Education
Dr. William G. Cooper, Associate Director for Planning
Dr. Ernest M. Allen, Associate Director for Extramural Programs
Mrs. Helen S. Bennison, Grants Management Specialist, EP
Mr. Arthur J. Broering, Deputy Associate Director for Extramural Programs
Dr. Jeanne L. Brand, International Programs Division, EP
Mr. Peter A. Clepper, Program Officer, EP
Mrs. Karin K. Colton, Committee Management Assistant
Dr. Roger W. Dahlen, Chief, Division of Biomedical Information Support, EP
Miss Annette B. Green, Grants Data Clerk, EP
Mrs. Rose Marie Holston, Program Technical Assistant, EP
Mrs. Frances E. Johnson, Program Officer, EP
Mrs. M. Kathleen Nichols, Grants Management Specialist, EP
Mrs. Marguerite L. Pusey, Administrative Officer, EP
Mrs. Jacqueline B. Watley, Secretary to the Associate Director for EP
Mr. Randall Worthington, Program Officer, EP
Dr. Galina V. Zarechnak, Program Officer, EP

B O A R D O F R E G E N T S

Lister Hill Center and National Medical Audiovisual Center
Subcommittee Meeting

January 23, 1980

A T T E N D E E S

Subcommittee Members Present:

Dr. Nicholas E. Davies
Dr. S. Richardson Hill, Jr.
Dr. Edward J. Huth
Dr. Cecil G. Sheps

NLM Staff Present:

Dr. Harold M. Schoolman, Deputy Director for Research & Education
Dr. Lionel Bernstein, Director, LHCBC
Dr. William G. Cooper, Associate Director for Planning
Mr. Charles M. Goldstein, Chief, Computer Technology Branch, LHCBC
Dr. B. Earl Henderson, Chief, Communications Engineering Branch, LHCBC
Dr. A. Donald Merritt, Chief, Health Professions Application Branch, LHCBC
Dr. Harold A. Wooster, Special Assistant for Program Development, LHCBC

B O A R D O F R E G E N T S

Meeting of the Subcommittee for the Review of Competitive
Regional Medical Library Contract Proposals

January 23, 1980

A T T E N D E E S

Subcommittee Members Present:

Dr. Faye G. Abdellah
Dr. Doris H. Merritt

NLM Staff Present:

Mr. Kent A. Smith, Deputy Director
Mr. Sheldon Kotzin, RML Program Coordinator
Mrs. Jane Strudis, Contracts Management Specialist

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
NATIONAL INSTITUTES OF HEALTH
NATIONAL LIBRARY OF MEDICINE
Bethesda, Maryland

A G E N D A

64th Meeting of the

BOARD OF REGENTS

9:00 a.m., May 22-23, 1980

Board Room
National Library of Medicine

MEETING OPEN: All day on May 22 and from 9:00 to 11:00 on May 23.
MEETING CLOSED: From 11:00 a.m. to adjournment on May 23 for the review of grant applications.

- I. CALL TO ORDER AND INTRODUCTORY REMARKS Dr. S. Richardson Hill, Jr.
- II. REMARKS BY THE ASSISTANT SECRETARY FOR HEALTH AND SURGEON GENERAL Dr. Julius B. Richmond
- III. CONSIDERATION OF MINUTES OF LAST MEETING TAB I Dr. S. Richardson Hill, Jr.
(Orange Book)
- IV. DATES OF FUTURE MEETINGS TAB II
1980 and 1981 Calendars
Next Meeting: October 9-10, 1980 (Th-F)
Winter Meeting: January 29-30, 1981 (Th-F)
Spring Meeting: May 21-22, 1981 (Th-F) or
May 28-29, 1981 (Th-F)
- V. REPORT OF THE DIRECTOR, NLM TAB III Dr. Martin M. Cummings
- COFFEE BREAK
- VI. MEDLARS III STATUS REPORT TAB IV Dr. Joseph Leiter
Mr. James F. Williams
Prof. Martha E. Williams
- Discussion Mr. Alfred R. Zipf and Board Members

(Photograph of Board members in front of Library.)

DEDICATION LUNCHEON FOR LISTER HILL CENTER BUILDING (Dining Room of New Building) 12:00-1:15 Dr. S. Richardson Hill, Jr.

VII. DEDICATION PROGRAM IN AUDITORIUM OF LISTER HILL CENTER BUILDING TAB V 1:15-5:00

R E C E S S * * * * *

TOURS OF LHC BUILDING FOR BOARD, STAFF, AND FAMILIES 6:30 p.m.

DINNER 7:30 p.m. Dining Room of LHC Building

SPEAKER: Dr. Peter D. Olch Deputy Chief, History of Medicine Division, NLM

TOPIC: "The Society of Pithotomists -- 1897-1980"

* * * * *

R E C O N V E N E: Friday, May 23, 1980, 9:00 a.m.

* * * * *

VIII. SPECIALIZED INFORMATION SERVICES TAB VI Dr. Henry M. Kissman Prof. Martha E. Williams Discussion Board Members

IX. REPORT OF THE ASSOCIATE DIRECTOR FOR EXTRAMURAL PROGRAMS TAB VII Dr. Ernest M. Allen

A. Tentative Pay Plan FY 1980 Tab A

B. Computers-In-Medicine Program -- Initial Review Tab B

C. Library Management Intern Program -- Progress Report Tab C

X. REPORT OF THE NOMINATING COMMITTEE Dr. Faye G. Abdellah

XI. NEW BUSINESS Dr. S. Richardson Hill, Jr

COFFEE BREAK

MEETING CLOSED FROM 11:00 A.M. TO ADJOURNMENT FOR GRANT APPLICATION REVIEW

XII. SPECIAL APPLICATIONS

- A. Publication
- B. Research
- C. Program Project
- D. Resource Project
- E. Resource Improvements

TAB I
TAB II
TAB III
TAB IV
TAB V

Dr. Jeanne L. Brand
 Dr. Roger W. Dahlen
 " " " "
 " " " "
 " " " "

XIII. SUMMARY STATEMENTS

- A. Publication
- B. Special Scientific Project
- C. Research
 - 1. Program Project
 - 2. New Investigator
- D. Resource
 - 1. Improvement

Tab A
Tab B

Tab A

TAB VI
TAB VII
TAB VIII

TAB IX

Dr. Jeanne L. Brand
 Dr. Roger W. Dahlen
 " " " "

 " " " "

XIV. ADJOURNMENT

Dr. S. Richardson Hill, Jr.

DEPARTMENT OF HEALTH AND HUMAN SERVICES

NATIONAL INSTITUTES OF HEALTH
NATIONAL LIBRARY OF MEDICINE

BOARD OF REGENTS

MINUTES OF 64th MEETING
May 22-23, 1980

BOARD ROOM
NATIONAL LIBRARY OF MEDICINE
BETHESDA, MARYLAND

DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE

THE BOARD OF REGENTS OF THE NATIONAL LIBRARY OF MEDICINE

Minutes of Meeting 1/ 2/

May 22-23, 1980

The Board of Regents of the National Library of Medicine was convened for its sixty-fourth meeting at 9:00 a.m. on Thursday, May 22, 1980, in the Board Room of the National Library of Medicine, Bethesda, Maryland. Dr. S. Richardson Hill, Jr., Chairman of the Board of Regents, and President of the University of Alabama in Birmingham, presided. In accordance with P.L. 92-463 and the Determination of the Director, NIH, and as announced in the Federal Register on April 14, 1980, the meeting was open to the public from 9:00 a.m. to 12:00 noon on May 22, and from 9:00 to 11:15 a.m. on May 23, and closed from 11:15 to 11:55 a.m. on May 23 for the review, discussion and evaluation of grant applications. A Board roster is enclosed under Attachment "A."

Board members present were:

Dr. Ismael Almodóvar
Dr. Eloise E. Clark (May 22)
Dr. Nicholas E. Davies
Dr. Emmet F. Ferguson, Jr.
Dr. S. Richardson Hill, Jr.
Dr. Edward J. Huth
Dr. Doris H. Merritt
Dr. Julius B. Richmond (May 22)
Dr. Cecil G. Sheps
Dr. John L. Townsend
Mr. James F. Williams II
Ms. Martha E. Williams

Alternates to the Board members present were:

Dr. Faye G. Abdellah, representing Dr. Julius B. Richmond
Mr. James M. Hahn, representing Dr. Donald L. Custis
Brig. General Monte G. Miller, representing Lt. General Paul W. Myers
Col. John C. Richards, representing Lt. General Charles C. Pixley
Mr. William J. Welsh, representing Dr. Daniel J. Boorstin
Rear Admiral Almon C. Wilson, representing Vice Admiral Willard P. Arentzen

1/ For the record, it is noted that members absent themselves from the meeting when the Board is discussing applications from their respective institutions (interpreted to mean the entire system of which a member's institution is a part) or in which a conflict of interest might occur. Only when an application is under individual discussion will the Board member absent himself. This procedure does not apply to "en bloc" actions.

2/ The Board of Regents, when considering the extramural programs of NLM, also constitutes and serves as the National Medical Library Assistance Advisory Board.

National Library of Medicine staff members attending this meeting included:

Dr. Martin M. Cummings, Director
Mr. Kent A. Smith, Deputy Director
Dr. Harold M. Schoolman, Deputy Director for Research and Education
Dr. Ernest M. Allen, Associate Director for Extramural Programs
Mr. Philip D. Amoruso, Executive Officer
Mr. James W. Barry, Deputy Associate Director, LO
Mr. Harry D. Bennett, Director for Computer and Communications Systems
Dr. Jeanne L. Brand, Chief, International Programs Branch, EP
Mr. Arthur J. Broering, Deputy Associate Director for Extramural Programs
Dr. William G. Cooper, Associate Director for Planning, and Acting Director, NMAC
Miss Mary E. Corning, Assistant Director for International Programs
Dr. Roger W. Dahlen, Chief, Division of Biomedical Information Support Branch, EP
Mr. Benjamin Erdman, Deputy Director, LHNCBC
Mr. Donald Hummel, Chief, Biomedical Files Implementation Branch, SIS
Ms. Betsy Humphreys, Deputy Chief, Technical Services Division, LO
Dr. Henry M. Kissman, Associate Director for Specialized Information Services
Mr. Sheldon Kotzin, RML Program Coordinator
Dr. Joseph Leiter, Associate Director for Library Operations
Mrs. Grace McCarn, Chief, Bibliographic Services Division, LO
Mr. Robert B. Mehnert, Chief, Office of Inquiries and Publications Management
Dr. A. Donald Merritt, Chief, Health Professions Applications Branch, LHNCBC
Mr. Arthur J. Robinson, EEO Coordinator
Dr. Melvin L. Spann, Chief, Information Services Branch, SIS

Others present included:

Dr. William R. Baker, Jr., Special Assistant for Biomedical Engineering, Biotechnology Resources Program, DRR
Dr. Richard A. Farley, Deputy Director for Technical Information Systems, Science and Education Administration, Department of Agriculture
Mrs. Bernice M. Hetzner, Professor of Library Science, University of Nebraska, Medical Center, Consultant
Dr. Saul Jarcho, New York Academy of Medicine, Consultant
Mrs. Ileen E. Stewart, Executive Secretary, Special Study Section, DRG, NIH
Mr. Alfred R. Zipf, Executive Vice President and Senior Administrative Officer, Bank of America, Consultant

Members of the public present:

None

I. OPENING REMARKS

Dr. S. Richardson Hill, Jr., Chairman, welcomed the Regents, consultants, and guests to the 64th meeting of the Board of Regents. He expressed his special pleasure in having new ex officio alternates Brig. General Monte G. Miller and Rear Admiral Almon C. Wilson at their first meeting; but he noted with regret that this would be the last meeting of ex officio alternate Colonel John C. Richards who was assuming new duties as Deputy Commander of Tripler Army Medical Center in Honolulu. The Chairman expressed the thanks of the Board for his contributions and active participation in its deliberations.

II. CONSIDERATION OF MINUTES OF PREVIOUS MEETING

The Regents approved the minutes of the January 24-25, 1980, meeting without change.

III. DATES FOR FUTURE MEETINGS

The Board will meet next on October 9-10, 1980. The dates of January 29 and 30 were selected for the winter 1981 meeting; and May 21-22, 1981, was tentatively agreed upon for the spring meeting.

IV. REPORT OF THE DIRECTOR, NLM

Dr. Cummings noted that this day would be a very special day in the history of the Library, since it would culminate in the afternoon with the dedication ceremonies of the Lister Hill Center Building.

Turning to the business at hand, he highlighted several issues of concern. The budget cycle for Fiscal Year 1981 is almost complete. For the last eight months of FY 1980, NLM has been operating under a continuing resolution. As part of the President's effort to balance the 1981 budget, a rescission request was submitted reducing NLM's 1980 budget by \$613,000 and proposing a \$341,000 decrease for 1981. Dr. Cummings emphasized that the National Library of Medicine was not singled out for these cuts, but treated fairly in the context of cuts which had to be absorbed by NIH as a whole. NLM has tried to assimilate the cuts where they will do the least damage, protecting library services wherever possible. Highest priority was given to Library Operations which serve all of the nation's health community. Dr. Cummings singled out one issue as more important than the decreases in the budget--the reduction in staff positions, especially affecting the operations of the National Medical Audiovisual Center. Unfortunately, the Federal hiring freeze went into effect last February 29, one day before NMAC's official transfer from Atlanta to Bethesda. More than 50 people of NMAC's Atlanta staff decided not to move to Bethesda. NLM now finds itself in the most difficult position of having a major part of the Library moved to the new Lister Hill Center--uniquely designed to better serve national needs--and not being able to recruit replacement staff. The problem has been brought to the attention of the NIH Director, the Assistant Secretary for Health, and the Secretary; but, as yet, no decision has been made. NIH is supporting the Library in this matter. A request for exemption which was forwarded to the Public Health Service is still under review.

On the matter of increasing the number of appointed members on the Board from 10 to 13, Dr. Cummings reported that the request, previously approved by the Office of Management and Budget (OMB), has now been returned by OMB without action. It does not seem propitious at this time to resubmit the request.

On a happier note, the Director brought the Board up to date on the computer procurement. The competitive procurement for the replacement of the Library's existing computer system has been withdrawn in accordance with the Board's recommendations at last January's meeting. Instead, NLM will now be able to acquire two IBM 370/168 computers, presently in use at NIH, for the total sum of \$700,000-- a bargain, since a new system would cost several million dollars. The first computer will be delivered in June and the second one is expected in August. The new system will be fully operative on or about September 1, 1980. In the meantime, NLM will continue to accept new users following the priority system approved by the Board in January. This opportunity, combined with the installation of the toxicology-related data bases at the State University of New York, is expected to lead to an increase in the amount of service provided by the Library's backup system. In addition, by installing a third copy of the ELHILL retrieval program at NLM, the number of computer services has been increased.

Difficulties in the interlibrary loan requirements have arisen for some of the users in Region IV (Mid-Atlantic Region) with the implementation of the program which required that all of the area's military medical libraries make their requests for loans through the new Uniformed Services Medical Library. It is clear that the performance of the new library has been inadequate to satisfy the needs of local military medical libraries. As a result of discussions with members of the Defense Health Council, which includes the Surgeons General of the three military services, NLM has agreed to allow the Washington area military medical libraries to make direct requests to NLM for materials not available from the Uniformed Services Medical Library. This change in procedure, it is hoped, will solve the difficulties. The problem stems partly from the fact that NLM has been used as the major medical library to serve the metropolitan area, depressing development of the local medical libraries associated with the area's major universities.

Stressing the declining costs in computer storage and retrieval, Dr. Cummings stated that the Library is making the correct investment in seeking procedures that allow NLM to replace costly labor-intensive processes with new computer communications technologies-- a trend that will be particularly noticeable in Dr. Leiter's report on MEDLARS III.

In conclusion, Dr. Cummings reported on the continuing negotiations with the Library's counterpart in the Peoples Republic of China. A five-member delegation, representing the National Library of Medicine, has been chosen to visit the Peoples Republic in July of this year.

Returning to NLM's staffing problems, Dr. Davies proposed a resolution regarding the hiring freeze and its detrimental effect on the operations of the National Medical Audiovisual Center. After due consideration by the Board, the resolution was passed unanimously (Attachment B).

Next Mr. Kent A. Smith, NLM Deputy Director, presented a policy issue for the Board's consideration concerning interlibrary loan charges to commercial organizations within the Regional Medical Library Network. To the degree possible, all segments of the health community are provided equal access to library services. The RMLs are bound by the policy that borrowing libraries cannot be charged more than the uniform maximum to fill a loan. At present, that figure is \$5.00. Since the establishment of the new uniform maximum charge, a new institutional user-- the commercial information broker-- has appeared on the scene. These brokers do not belong to or support a library and thus do not contribute in a significant way to the network; they do, however, put excessive demands on the network libraries. In turn, they charge their clients high prices for their services. Several of the RMLs have proposed that NLM consider allowing network libraries to charge the brokers and other commercial enterprises of this nature fees which are above the maximum rate of \$5.00. NLM believes this to be a reasonable request. The Board expressed its support of the request by recommending approval of the new policy (Attachment C).

The Chairman commended the Director of the National Library of Medicine in the name of the Board for his leadership in bringing into being the new Lister Hill Center Building.

V. REMARKS BY THE ASSISTANT SECRETARY FOR HEALTH

Dr. Julius B. Richmond noted with pleasure that he could be at the Library on this day when the dedication of the Lister Hill Center Building will take place-- a day of importance not only to the U.S. but to the whole world. He expressed his pride particularly as a medical educator and a person who has been interested in all aspects of biomedical communications. Having just returned from the World Health Assembly meeting in Geneva, Dr. Richmond commented on the health role the U.S. is playing in the world at large. He recounted the developments that have taken place over the past year and that have included the consummation of a biomedical agreement in the field of health with the Peoples Republic of China and a just-concluded renegotiated bilateral health agreement with Egypt. Other agreements around the world are in the developing stages.

In the forum of the World Health Assembly it is important to recognize that in the field of health there is no erosion of respect for the U.S. and no problems in terms of the continuity of developments of relationships. Very noticeable is a tremendous growth of interest and concern about relationships with the U.S., expressed by developing as well as developed countries. The U.S. is literally inundated in the World Health Assembly forum with requests for collaborative activities. It was impressive to note that countries of all political persuasions are looking to the U.S. for help and leadership in the health field. In view of this interest, Dr. Richmond believes that the U.S. needs to redevelop resources and capacities to relate to these countries in more effective ways. This conclusion does not mean that efforts should halt, but that the U.S. should assess future and present goals in order to continue to be responsive effectively. He noted that it was particularly fortunate that Secretary Harris was able to attend the World Health Assembly gathering. Her presentation before the Assembly reflected the serious interest the U.S. takes in its international responsibilities. This was the first Assembly meeting marking the eradication of smallpox in the world. Secretary Harris was also the representative of the Pan American Health Organization, and she spoke during the ceremonies marking this event-- a very momentous and historic occasion for medicine. Dr. Richmond emphasized that if basic knowledge and technology and the political and social climates are present to work together on problems, it is feasible to accomplish major feats. When finally this determination was present in the case of smallpox, it took only a little more than ten years to eradicate the disease.

Dr. Richmond then touched on another development within the World Health Organization-- the issue of "Health for All by the Year 2000," espoused three years ago by Dr. Halfdan Mahler, the Director General of WHO. One of the first positive actions that developed from this call was the first conference on primary health care. Health problems facing particularly the developing nations were recognized. During this year's Assembly meeting four case histories on this issue were presented by the developed countries. The interesting point that emerged was that developed countries were really struggling with many of the same issues in health. What the various countries of the world are coming to realize is that as a consequence of the slogan "Health for All by the Year 2000," they are looking more critically toward what should be achieved by the year 2000 and what the strategies for getting there will be. What we are moving toward is the development of a social contract whose goals can be constantly redefined and renegotiated. This is in concert with the Surgeon General's Report by beginning to qualify goals under a very broad-scale dialogue with people across the U.S. who have come together to elaborate on these goals and to quantify them. In effect, some of the implications of this development on the Lister Hill Center will be the reordering to some extent of priorities in educational programs for people in all the health professions. Increasingly heavy emphasis on environmental issues, on issues related to health, health promotion and disease prevention, will be forthcoming. What has been seen around the world is the same kind of focus on sharpening these objectives with a very large emphasis not only on primary care but on health promotion and health prevention.

VI. MEDLARS III STATUS REPORT

Dr. Joseph Leiter, NLM Associate Director for Library Operations, reported on the progress made in developing MEDLARS III by enhancing the present MEDLARS II capabilities. Since the goals were first outlined to the Board in October 1979, the concepts have been refined. The principal objectives of MEDLARS III continue to be the transition from the current partially manual processing system to one more fully automated with particular concentration on greater efficiency in record creation and maintenance and distribution--a need that has become crucial in the face of manpower constraints. This process will also provide improvement in the amount and timeliness of stored information for the benefit of the user. Close liaison will be maintained with the library and information community. The recommendations detailed in the concept document, included in the agenda book, reflect this interaction with the library community and will become an important component in the MEDLARS III development. In addition to the medical library community, consultants from the general information fields have been advised, because of the expressed concern, that MEDLARS III reflect appropriate interface with the nonmedical information community. Dr. Leiter summarized some of the recommendations included in the Task Force plans.

A number of policy issues were reviewed. One was to define very clearly what proposed utility and network services NLM would provide and how those could be related to the network and utility services provided by other organizations. Very important in this whole development is the relationship to the Library of Congress and other national programs. The implications of having a master bibliographic record--entering a record only once and maintaining it only once--were considered. There are great problems to be overcome in converting to the MARC system. Converting to the revised Anglo-American Cataloging Rules, which become effective January 1981, will have an important impact on the design and development of functional requirements. And finally, since an open-ended system is desirable, current and emerging technologies have to be studied in order to prevent the development of a system that will soon be obsolete. Principal importance has been given to reviewing existing library automation systems and services. A number of institutions have been visited in an effort to decide on a transitional system and the possibility of actually acquiring a software package that will serve part of the needed functions. NLM's anticipations in this regard have been confirmed in that some of the visited systems have capabilities that would serve the Library's functions quite well.

Dr. Leiter then described what has been accomplished since the first draft of the concept document was developed in September 1979. Beginning with the draft of functional specifications, the following activities have either been completed or will be completed by September 1980:

- Detailed functional flow diagrams
- Analyses of computer workloads
- Delivery schedule for functional specifications
- Final draft of functional specifications outline
- General implementation plan
- Plan for initial "front-end" implementation
- Preliminary draft of detailed functional specifications
- Final draft of detailed functional specifications
- Review and analysis of alternatives for transitional system

Dr. Leiter pointed out that during the past year productive meetings have been held with the Library of Congress and the National Agricultural Library to develop coordinated scope and coverage programs complementing each other rather than instituting overlapping functions. All of these efforts should facilitate the development of NLM's own MEDLARS III automated procedure and provide for integration with national systems. At the same time, a transition system will be necessary, one that will not require double input and maintenance. Dr. Leiter forecasted the time period for actual implementation of MEDLARS III as three years under the most optimistic circumstances. For practical purposes, a period of five to six years would be more realistic. He noted two other aspects in the development that are already under way--

one is the retrospective conversion of NLM's card catalog, including all the materials prior to 1965 not in machine-readable form. This is proceeding well and will be completed sooner than anticipated. By mid-1982 the entire catalog, back to 1801, will be available in machine-readable and searchable form not only at NLM but in the entire network. The other is a national biomedical holdings projects, which as a first phase will incorporate the holdings of serials in all resource libraries, so that algorithms can be developed for automating the flow of document delivery requests and linking them with NLM's retrieval system. Completion is anticipated by the middle of 1982.

Dr. Leiter stated that MEDLARS III is an enormous undertaking, and the most critical need will most likely occur early in the fall of 1980, i.e., to mount a management team sufficiently strong with system-design people and LO staff to be able to manage this contract. Most of the development, because of the lack of manpower resources, will have to be done under contract; however, no contract of this magnitude can possibly succeed unless a strong support staff is developed at the Library level.

Mr. Williams commented that NLM should be applauded for its efforts to keep the library community aware of its plans, and he expressed the hope that the Library will continue to seek advice from the library community. He also praised the Task Force for the tremendous accomplishments achieved to date.

Professor Martha Williams, one of the consultants on this project, noted that the narrow focus and limited frame of reference of the plan, when first presented in the fall of 1979, has been appropriately broadened to one of much greater scope and sophistication. Plans now take advantage of recent and ongoing information science research and state-of-the-art technology. She stated that the NLM Task Force has done an excellent job of developing plans for the type of system one would expect to see in the eighties. It was her hope that NLM management will find ways to continue the detailed work of completing the plans and overseeing the implementation of what promises to be an excellent system.

Mr. Zipf, who is also a consultant on this project, commented that the Task Force has accomplished a great deal already; however, much remains to be done. Although the computer problem seems to be solved for the time being, the fact remains that at least a million dollars was spent fruitlessly during the last five years in the attempt to procure adequate computer capacity. The latest decision of acquiring two IBM computers from NIH, however, will easily save the government \$5.0 million in the next four to five years. Mr. Zipf suggested that instead of tackling the entire program at once, it might be wiser to take small segments at a time. Without question, some important and significant improvements such as designing the front end of the system can be realized quickly. If NLM settles for a little less in the beginning, a great deal can be accomplished in a relatively short time span, and the Library can continue to grow in the information service needed.

The Board adjourned for lunch and the Lister Hill Center dedication activities of the afternoon. (Proceedings will be made available as soon as they are printed.) The regular Board meeting was reconvened at 9:00 a.m. on May 23 for the continuation of Board business.

The Chairman commented on the historic dedication ceremony of the previous afternoon and expressed the Board's gratitude to Dr. Cummings for his efforts on the Board's behalf in getting the Lister Hill Center Building completed.

VII. SPECIALIZED INFORMATION SERVICES

Dr. Henry M. Kissman, NLM Associate Director for Specialized Information Services, reported on three activities of the Toxicology Information Program (TIP) that have not been discussed before in any detail: (1) Information Support to the National Toxicology Program, (2) Chemical Substances Information Network and the Chemical Structure and Nomenclature System, and (3) Peer Review of the Toxicology Data Bank.

The National Toxicology Program (NTP) was established in 1978 by the Secretary of HEW from components of the Department that were involved in toxicology testing and, in particular from the largest of these--the carcinogenesis bioassay system of the National Cancer Institute. The NTP is governed by an Executive Committee, which includes heads of the NTP component agencies, as well as the heads of the regulatory agencies that deal with toxic substances. A Board of Scientific Counselors is the primary advisory group which reports to the Secretary and the Director of NTP, Dr. David P. Rall, who is also the Director of the National Institute of Environmental Health Sciences. The program's goals were to broaden the testing of substances beyond the carcinogens testing program. It now costs \$500,000 to test one compound in a two-year feeding study in rodents. The next step is to increase the rate of compounds tested from approximately 45 tested by the Cancer Institute per year to about 75. However, recent severe budget cuts will most likely reduce the higher estimate. The products of this large and expensive effort are essentially informational. An annual plan is made available; it includes listings of all compounds to be tested. Another series of publications reports on the testing results. In 1979 NTP was also given the responsibility of preparing an annual report to the Congress (called for by the Maguire Amendment to P.L. 95-622) on carcinogens, particularly those affecting humans.

About a year ago discussions began between NLM and NTP to set up an information support activity which is essentially a literature-based information support system. The formal inter-agency agreement that emerged required the Library to provide access to NLM services, including the use of certain contracts, particularly Chemical Abstracts Service; physical space for positions that NTP is supplying for these activities; and one manyear equivalent of NLM staff. The NTP is providing essentially reimbursement for any overt costs, one expert consultant position to work on NTP projects at NLM, and an Intergovernmental Personnel Act position.

Dr. Kissman highlighted some activities that have been initiated and accomplished by NLM since last August:

- A unique numbering system for all NTP compounds has been installed.
- Responsibility for the functioning of the literature search activity, supporting NTP, at the Oak Ridge National Laboratory has been assumed.
- An NTP Registry File at Chemical Abstracts Service was set up. This computerized file will have as an output the validation of the compound identification, as well as an NTP Registry Handbook which will identify these compounds.
- For the literature activity NLM is building a management information system, using FDA's Parklawn computer center. The system is very flexible and, in addition to the literature activity, is now being used to computerize the tabular portions of the annual Review of Current DHEW Research Related to Toxicology. This will be the first computerized data base of all compounds under testing anywhere in the Department.
- NLM has been asked to assist in the computerization of the Maguire Report, but not much has been done in that area yet. The first issuance is being assembled manually.
- In the NTP/NLM interagency agreement, TIP has been given responsibility for providing technical direction for two information centers at the Oak Ridge National Laboratory--the Environmental Mutagen and the Environment Teratology Information Centers.

Dr. Kissman stated that the personnel resources that have been made available to NLM under the agreement are insufficient to accomplish the activities outlined above and others still in the offing. NTP has been asked to commit several fulltime positions toward the establishment of an NTP Information Support Branch in the Toxicology Information Program at NLM. Further talks on this subject are scheduled for the week of May 25.

The second activity of the Toxicology Information Program deals with the Chemical Substances Information Network (CSIN). This is a major interagency effort which arose after the passage of the Toxic Substances Control Act. The Board of Regents has been advised about the Act and its informational consequences in the past. CSIN is intended to facilitate access to online information retrieval from various files located in diverse computers. It has had major funding from EPA (Environmental Protection Agency), NLM, the Council on Environmental Quality, and from the HEW Coordinating Committee. Discussions have been held recently with the Consumer Products Safety Commission and the National Center for Health Statistics for needed funding. The Office of Management and Budget (OMB) is looking very closely at this activity. OMB believes that some of the large agencies, such as the Department of Energy and the Department of Defense, should also participate in this activity because of its possible benefits to them. The project is coordinated by an interagency committee run by the EPA and the Council on Environmental Quality. A subcommittee devoted entirely to CSIN activities is chaired by NLM. NLM is directly involved in the development of two directory files--a chemical directory, called the Chemical Structure and Nomenclature System; and a concept-based directory, called the Chemical Information Resources Directory. TIP's efforts are focussed primarily on development of the chemical directory. A study done by the University of Pennsylvania in 1979 recommended certain capabilities for CSNS, including full-structure searches by Chemical Abstracts Registry Number; substructure searching by structure, name, and molecular formula fragments; a file size of 1 million to 5 million compounds; accessibility to government, industry, and researchers; and online interactive access. The study established that no existing chemical information system seemed to have the capability to satisfy all these requirements. Chemical Abstracts Service offered to make its large TARGET System--now being built--available; however, some of the requirements are not covered by this system either. Another concern was timing, since the TARGET System will not be operational until 1983. The decision was made to go for an interim version of CSNS (a first-phase system) with participation by CAS, since that organization has the only system that stores this type of data and its participation is absolutely necessary for the implementation and survival of CSNS. It is proposed to build the interim CSNS around CHEMLINE at NLM or at SUNY by augmenting it with several additional capabilities. Completion is expected by the end of 1980.

Dr. Kissman pointed out that if this system were to be completely implemented at NLM, it would give the Library a powerful chemical online information system at a level not now available anywhere else, regardless of whether the Chemical Substances Information Network activity survives or not. Unfortunately, a problem has arisen recently, which puts the development of CSNS in doubt. NLM has been told that the American Chemical Society, which is the parent organization for Chemical Abstracts Service, is considering no longer making certain data files available outside the Chemical Abstracts Service. If such action is enforced, it would strike a blow at the approach NLM is contemplating. Dr. Kissman expressed the hope that at planned meetings in June the American Chemical Society will change its position.

Dr. Kissman then reported briefly on the last project under TIP's direction, the Toxicology Data Bank (TDB), emphasizing particularly the evaluation aspect which is handled through the peer review process. The TDB Peer Review Group provides data evaluation and advice on TDB sources, compound selection, updating methodology, and other facets of a given project. Basically, the group functions as a consensus-building group that reaches agreement on whether a particular TDB record accurately reflects present knowledge about a chemical. Dr. Kissman stated that there is no question that this evaluation activity makes the data bank a much more valuable tool.

Professor Williams voiced her support for the three programs and the knowledgeable handling of the detailed technical work by Dr. Kissman and his staff. A discussion ensued on the implications of having Government-supported research information freely used by the private sector. Chemical Abstracts Service is such a case in point. Dr. Cummings explained that until recently the U.S. Government has always allowed Government-generated documents to be utilized domestically and internationally as non-copyrightable material. Tax-supported intellectual property was

given away until the recent international convention changed the rules, making this matter a country-to-country arrangement. With regard to the more basic problem of the Chemical Abstracts Service and the growing argument with respect to ownership, he noted that the National Science Foundation originally set the policy for the Government when it began its support for the systems-building of CAS. At that time, some people thought that something like this would happen unless Government and private rights were clearly defined in the terms of the contract.

VIII. REPORT OF THE ASSOCIATE DIRECTOR FOR EXTRAMURAL PROGRAMS

Dr. Ernest M. Allen presented a tentative pay plan for FY 1980 which reflected the Board's recommendations made at its January meeting that \$1.0 million be reserved for the Computers-In-Medicine Program and that special emphasis be given to Improvement Grants by paying through priority 200. The balance available for the May 1980 meeting is \$1,526,306, of which \$1.0 million is earmarked for the Computers-In-Medicine Program, \$100,000 for Improvement Grants, and \$426,306 for all other grants through priority 175. Based on preliminary recommendations, including those made on May 21 by the Board's Extramural Programs Subcommittee, the \$9,925,000 appropriated for FY 1980 will be obligated as stated below (figures include competing and noncompeting grants):

RESEARCH		
Computers-In-Medicine	(7)	\$ 826,066
New Investigator	(7)	311,047
Library and Information Science	(15)	1,521,569
Research Career Development	(3)	112,277
TRAINING	(10)	1,654,799
SPECIAL SCIENTIFIC PROJECTS	(4)	132,130
PUBLICATIONS	(33)	815,890
RESOURCES		
Project	(26)	1,027,392
Improvement	<u>(48)</u>	<u>579,653</u>
TOTAL	(153)	\$ 6,980,823
RML CONTRACTS	<u>(8)</u>	<u>2,944,177</u>
TOTAL ALL PROGRAMS	(161)	\$ 9,925,000

Dr. Allen explained that the Training Grant funds, as per Board recommendations, include \$300,000 from Computers-In-Medicine funds, in order to keep the program at its present level of funding. However, because of the evaluation of the Training Grant Program that is now in progress, the length of award for each Training Grant was reduced from five to two years. Two years is the length of time anticipated for completing the evaluation, and NLM does not want to commit funds for more than two years not knowing the outcome of the study. The anticipated FY 1981 appropriation is \$9,831,000, a decrease from FY 1980. Since the commitments for FY 1981 for competing grants will be much larger than for FY 1980, only \$1,731,000 will be available for competing grant applications for FY 1981, a significant decrease.

Computers-In-Medicine Program

Mr. Peter A. Clepper, EP Program Officer, gave a status report on this program, beginning with a brief background review. The legislative authority originated with the 1965 Medical Library Assistance Act. In 1971 the Stead Committee of the Association of American Medical Colleges (AAMC) made a number of recommendations, particularly regarding NLM's role in enhancing educational technology in medicine. This recommendation has become the vital part of NLM's Training Grant Program.

In 1978 Dr. John F. Sherman, Chairman of the Biomedical Library Review Committee, reported to the Board on recommendations of a task force about utilizing the resources of the Research Grants Program to develop new knowledge in the computer sciences in health. NLM's goals are to sponsor research addressed to the fundamental issues of knowledge representation, problem solving, and data base management with the hope that the program in time will become responsive to the needs of the computers-in-medicine field. In 1979 the Board approved a funding plan that utilized \$1.5 million of which the greater part came from the Lister Hill Center to support five program projects. The following year, in FY 1980, Congress earmarked \$1.3 million of MLAA funds to continue this research effort. By the end of this fiscal year, there will be approximately 23 active projects--five program projects, eight research projects, seven new investigator grants, and three awards in research career development. In conclusion, Mr. Clepper noted that the community at large is interested in this program. It has in the last two years produced projects that were interesting and varied. In the general area of knowledge representation a number of approaches are being supported, from the very advanced and theoretical to the applied. The announcements have been able to attract younger persons who have begun good work and are likely to continue in this effort. In the past year NLM's particular approach to program management has shown some success. There is potential for collaboration on some projects.

Dr. Sheps commented that it is very important that there is an awareness of what other people are doing and a need for interaction and collaboration. Dr. Allen responded that some very fine things have been said about the program and that collaboration is possible. NLM is already collaborating with the NIH Division of Research Resources on one particular project. He then asked Dr. Schoolman for his comments.

Dr. Schoolman admitted that he was not as optimistic as was indicative of the foregoing report and discussion. It is a fact that this is an activity which requires a large multidisciplinary type of interaction. The demands for talents of people specializing in the computer science field outside of medicine is tremendous and offers far greater rewards and recognition. Computer experts in the medical field are second-class citizens, if they operate within a medical school environment, because they do not have an M.D.; and for those who do have degrees in medicine, there are only two medical schools in the entire country which foster this type of activity. The need for research in this field is not only fundamental but overwhelming. The creation and pursuit of this activity within the medical environment requires very careful analysis and judgment as to the most critical place to put the investment. During the next Board meetings various aspects of this subject will be examined: The Stead Committee (AAMC) recommendations and objectives regarding the Training Grant Program; analysis of what the eight years of training have produced; and an assessment by the Board as to whether or not the objective is still appropriate or if it should be altered. Dr. Schoolman stated in conclusion that the importance of this field is overwhelming, but there is a great deal of work to be done. It is not immediately clear if the problems can be solved without serious changes in the institutional behavior toward the recipients of this support and whether or not the small amount of money that is available throughout the health sciences is sufficient to change the institutional thinking.

Regional Medical Library Contracts Status

Mr. Sheldon Kotzin, RML Coordinator, gave an update of RML contract activities during this fiscal year. NLM has completed negotiations with eight of the ten Regional Medical Libraries. No other Requests for Proposals will be issued this fiscal year. The last two regions, Southeastern

and Kentucky-Ohio-Michigan, will compete in FY 1981. The completion of this process will mark the first time all ten RMLs have been open for competition. Technical reviewers, site visit teams, and Board members provided staff with excellent advice and suggestions. NLM was able to include new performance standards in the contracts and strengthen other sections to stress activities to hospital libraries. The process has required that incumbent RMLs reexamine the cost and effectiveness of their programs. A total of \$2.96 million has been awarded to the RMLs this year, including awards to the University of Nebraska, the College of Physicians of Philadelphia, and the New York Academy of Medicine, which were made after the January Board meeting.

The Nebraska proposal and budget request were found reasonable and negotiations were concluded with no complications. The College of Physicians' budget was proposed at \$50,000 below last year's, primarily due to the continued phase-in of its document-delivery, cost-sharing plan, which resulted in the users paying proportionately more, while NLM's support was reduced. The New York Academy of Medicine's technical proposal was considered marginally acceptable, but the Technical Reviewers felt that the budget was excessive. After meeting with staff of the Region, the Technical Reviewers made several recommendations to NLM that included asking the Academy to reexamine resource library performance, changing the structure of regional governance committees, and awarding a two-year contract instead of a three-year one, with a site visit to follow after the first year. The Board Subcommittee was in favor of all recommendations, except the last and recommended that a three-year contract be awarded with site visits to take place at the end of the first and second years. The Board specified that if the issues are not reexamined effectively by the contractor, NLM could consider early termination. The Academy has accepted these advance understandings and will be awarded a new contract on June 1.

Health Sciences Library Management Intern Program

Mrs. Frances E. Johnson, EP Program Officer, gave a progress report on this program, which is supported by a contract to the Council on Library Resources (CLR). The purpose of the program is to prepare three mid-career librarians annually for future positions as medical library directors. Each intern spends one year under the tutelage of a medical library director, observing and participating in all aspects of management. The intern is paid a salary of up to \$25,000, moving expenses, limited professional travel, and a two-week orientation at NLM. NLM invites all medical school libraries in the country to submit curriculum plans if they desire to serve as hosts. After the interns are selected by a committee appointed by the CLR, the interns' backgrounds and experience are then matched with the host medical library curriculum plan to complement and supplement their previous experience. During the three-year existence of the program, nine interns have been selected- -three have graduated, three are currently in training, and three have recently been appointed to begin their internship in September.

X. REPORT OF THE NOMINATING COMMITTEE

Dr. Abdellah, Chairman of the Nominating Committee, reported that the Committee was unanimous in its choice of Dr. Nicholas E. Davies as the next Chairman of the Board. The Board accepted the Committee's recommendation and elected Dr. Davies to serve as Chairman of the Board of Regents from August 4, 1980, to August 3, 1981.

MEETING CLOSED FOR THE REVIEW OF GRANT APPLICATIONS

XI. REVIEW OF PENDING APPLICATIONS

Before proceeding with the consideration of pending applications, Dr. Brand informed Board members of confidentiality and conflict-of-interest procedures and reminded them to sign, at the conclusion of the grant review, the statement certifying that they had not participated in the discussion of any application where conflicts of interest might occur.

The Board concurred with the recommendations of the Extramural Programs Subcommittee. A total of 123 applications was reviewed, of which 60 were recommended for approval, 57 for disapproval, and six for deferral. Grant applications recommended for approval by the Board are listed in the summary actions (Attachment D). Interim actions taken by EP staff since the January 1980 meeting of the Board were noted.

XII. ADJOURNMENT

The meeting was adjourned at 11:55 a.m., Friday, May 23, 1980.

Wednesday, May 21, 1980, 2:00 to 3:30 p.m.
(EP Subcommittee--List of Attendees under Attachment E)
Thursday, May 22, 1980, 9:00 a.m. to 11:50 a.m.
Friday, May 23, 1980, 9:00 a.m. to 11:55 p.m.

ACTIONS TAKEN BY THE BOARD OF REGENTS

1. The Board passed a resolution urging that an exemption from the current hiring freeze be granted with regard to NMAC staffing (Attachment B).
2. The Board recommended approval of the new policy to allow RMLs to charge brokers and other commercial organizations for an interlibrary loan request above the uniform maximum rate of \$5.00 (Attachment C).
3. The Board expressed its gratitude to Dr. Cummings for his efforts in bringing into being the new Lister Hill Center Building.
4. The Board unanimously elected Dr. Nicholas E. Davies to serve as the new Board Chairman for the term beginning August 4, 1980, and ending August 3, 1981.
5. The Board concurred with recommendations of the Extramural Programs Subcommittee. Grant Applications recommended for approval are listed in the summary actions (Attachment D).

I hereby certify that, to the best of my knowledge, the foregoing minutes and attachments are accurate and complete.

Martin M. Cummings 7/11/80

Dr. Martin M. Cummings, M.D. (Date)
Executive Secretary

S. Richardson Hill, Jr. 7/30/80

S. Richardson Hill, Jr., M.D. (Date)
Chairman

Robert B. Mehnert
Chief, Office of Inquiries and
Publications Management.

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MEMORANDUM

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
NATIONAL INSTITUTES OF HEALTH
NATIONAL LIBRARY OF MEDICINE

DATE: May 22, 1980

TO : The Secretary
Through: US _____
ES _____
Director, NIH _____

FROM : Chairman, Board of Regents of the
National Library of Medicine

SUBJECT: Resolution Passed by the Board of Regents of the
National Library of Medicine

On May 22, 1980 the Board of Regents of the National Library of Medicine unanimously passed the attached resolution urging that an exemption from the current freeze on hiring personnel be granted in view of the negative impact it places on the programs of the National Medical Audiovisual Center since its move from Atlanta to Bethesda.



S. Richardson Hill, Jr., M.D.

Attachment

RESOLUTION OF THE BOARD OF REGENTS
OF THE NATIONAL LIBRARY OF MEDICINE

WHEREAS the National Medical Audiovisual Center, a component of the National Library of Medicine, transferred its staff on March 1, 1980, from Atlanta, Georgia, to its new laboratory and special-use facilities in the recently completed Lister Hill Center on the NIH campus in Bethesda and only a small percentage of the staff made the move;

WHEREAS the National Medical Audiovisual Center is seriously understaffed with only 27 out of 74 positions currently filled;

WHEREAS the current freeze on hiring from without the government or other agencies prevents the National Medical Audiovisual Center from fulfilling its mission to accelerate the transmission of educational and audiovisual technology into the health sciences;

RESOLVED the Board of Regents of the National Library of Medicine strongly urges that an exemption from the current freeze be granted the National Medical Audiovisual Center by the Department of Health and Human Services and the Office of Management and Budget so that the National Medical Audiovisual Center can use its new facilities in meeting its obligations to the health professional education and practice community.

NLM POLICY ISSUE

BACKGROUND: The present document delivery policy of the Regional Medical Library (RML) Network states that Libraries receiving filled loans will be charged at or below the national maximum user charge of \$5.00. This policy applies to all borrowing libraries, whether at health science institutions or other organizations. Since the establishment of the policy of a uniform maximum charge, Network Libraries have begun to receive an increasing number of document delivery requests from commercial companies which exist solely to provide articles on demand to their clientele. These information brokers have no collections of their own and no affiliated users. They do not contribute to the resource sharing and educational activities of the Network. Several of the Regional Medical Libraries have requested that NLM consider adopting a policy that would permit establishment of separate charges for information brokers. Therefore, we seek approval to modify the RML document delivery policy to allow Network institutions to set user charges for information brokers in excess of the national maximum.

PRESENT STATE OF DEVELOPMENT: Information brokers have established themselves as an intermediary level in the existing library to library loan process. One function of these organizations is to locate material for individuals in libraries of medicine and other subject areas, receive the material by photocopy or by loan, and provide it at higher cost to the user. Network Libraries supply photocopies and original material at or below the standard maximum charge which presently applies.

APPROVED POLICY: Commercial organizations which utilize the RML Network solely to receive loans for resale or distribution to others can be charged at a rate which exceeds the national maximum user charge. Neither the filled loan or any charge for the referral of unfilled requests shall be reimbursed by National Library of Medicine funding.

NLM DIVISION PRINCIPALLY INVOLVED: Office of the Director

NLM COMMITTEE OR ADVISORY GROUP: Board of Regents

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/
 (Arranged numerically by program)

COUNCIL DATE: MAY 1980

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
1 G07 LM 03200-01A1	SINGLE-INSTITUTION GRANT	01A1 4,000
2 G07 LM 03233-02	CONSORTIUM IMPROVEMENT GRANT	02 11,982
2 G07 LM 03237-02	CONSORTIUM IMPROVEMENT GRANT	02 30,000
1 G07 LM 03481-01	SINGLE-INSTITUTION GRANT	01 4,000
1 G07 LM 03561-01	SINGLE-INSTITUTION GRANT	01 4,000
1 G07 LM 03566-01	SINGLE-INSTITUTION GRANT	01 3,118
1 G07 LM 03567-01	SINGLE-INSTITUTION GRANT	01 4,000
1 G07 LM 03595-01	CONSORTIUM IMPROVEMENT GRANT	01 20,225
1 G07 LM 03598-01	SINGLE-INSTITUTION GRANT	01 4,550

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/
 (Arranged numerically by program)

COUNCIL DATE: MAY 1980

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
1 G07 LM 03604-01	SINGLE-INSTITUTION GRANT	01 4,230
1 G07 LM 03608-01	SINGLE-INSTITUTION GRANT	01 4,000
1 G07 LM 03615-01	CONSORTIUM IMPROVEMENT GRANT	01 22,350
1 G07 LM 03616-01	SINGLE-INSTITUTION GRANT	01 3,000
1 G07 LM 03620-01	SINGLE-INSTITUTION GRANT	01 3,000
1 G07 LM 03628-01	SINGLE-INSTITUTION GRANT	01 4,454
1 G07 LM 03644-01	SINGLE-INSTITUTION GRANT	01 4,259
1 G07 LM 03649-01	CONSORTIUM IMPROVEMENT GRANT	01 14,000

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/
 (Arranged numerically by program)

COUNCIL DATE: MAY 1980

INSTITUTE/DIVISION:	APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
NATIONAL LIBRARY OF MEDICINE	1 G08 LM 03318-01A1	SOUTHEAST ARKANSAS MEDICAL INFORMATION CENTER (SEAMIC)	01A1 76,330 02 41,600 03 35,400
	1 G08 LM 03470-01	ORGANIZATION OF A S T M & H ARCHIVES	01 35,852 02 42,971 03 27,461
	1 G08 LM 03558-01	MEDICAL LIBRARY EXPANSION, ALTERATION, AND RENOVATION	01 35,557
	1 G08 LM 03574-01	ORGANIZATION OF THE MGH ARCHIVES	01 41,142 02 41,658
	1 G08 LM 03576-01	LAUREL HIGHLANDS HEALTH AV MEDIA CENTER	01 77,248 02 70,886 03 49,023
	1 G08 LM 03594-01	ORGANIZATION OF HISTORICAL PAPERS	01 35,235 02 37,533 03 39,582
	1 G08 LM 03596-01	MEDICAL LIBRARIANSHIP ORAL HISTORY PROGRAM	01 2,892 02 3,181 03 3,498
	1 G08 LM 03606-01	RENOVATION FOR THE HEALTH SCIENCES LIBRARY	01 50,000

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/
(Arranged numerically by program)

COUNCIL DATE: MAY 1980

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
1 G08 LM 03622-01	ALTERATION AND RENOVATION FOR A CONSOLIDATED LIBRARY	01 28,050
1 G08 LM 03648-01	A SYSTEM FOR MANAGING CLINICAL INFORMATION IN MEDICINE	01 27,914 02 28,130 03 27,851

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/
 (Arranged numerically by program)

COUNCIL DATE: MAY 1980

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE	APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
	2 R01 LM 02857-04	INDIVIDUALIZED LIBRARY SERVICES FOR OFFICE PRACTICE	04 94,965 05 93,185
	2 R01 LM 02956-04	PHYSIOLOGY OF NERVE AND SYNAPSE IN THE 20TH CENTURY	04 18,137 05 21,013
	2 R01 LM 03009-03	FROM DRAGONBLOOD TO INSULIN: THE HISTORY OF DIABETES	03 12,845
	1 R01 LM 03124-01A1	SCIENTIFIC INTERESTS IN THE SOUTH	01A1 23,763
	1 R01 LM 03394-01A1	COMPUTER-BASED, INTERACTIVE MEDICAL KNOWLEDGE CENTERS	01A1 71,448 02 73,567 03 77,709 04 82,089 05 86,722
	1 R01 LM 03549-01	HISTORY OF AMERICAN PUBLIC HEALTH	01 11,635 02 13,860 03 9,592
	1 R01 LM 03557-01	PUBLIC POLICY AND THE ACADEMIC MEDICAL CENTER	01 22,610
	1 R01 LM 03568-01	FRENCH MEDICO-POLITICIANS, 1870-1914	01 22,210

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APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/
 (Arranged numerically by program)

COUNCIL DATE: MAY 1980

INSTITUTE/DIVISION:	APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
NATIONAL LIBRARY OF MEDICINE	1 R01 LM 03573-01		01 11,478
	1 R01 LM 03578-01	PUBLICATION OF NEUBURGER HISTORY OF NEUROPHYSIOLOGY	01 64,900 02 68,113 03 71,629
	1 R01 LM 03580-01	USE OF SNOMED CODE IN AUTOMATED MEDICAL TEXT ANALYSIS	01 43,196
	1 R01 LM 03582-01	NEAR-UV PHOTOBIOLOGY OF CELLS (REVIEW AND BOOK)	01 21,322 02 20,461
	1 R01 LM 03590-01	MCNOGRAPH: INFECTIOUS DISEASE: SIMULATION OF EPIDEMICS	01 54,926 02 58,833
	1 R01 LM 03591-01	METHOD TO MEASURE INFORMATION TRANSFER	01 10,588 02 11,110 03 11,665 04 12,255 05 12,883
	1 R01 LM 03592-01	COMPILATION OF PROTEIN RELATED ANALYTICAL DATA	01 17,908 02 4,861
	1 R01 LM 03593-01	ORIGINS OF SOVIET HEALTH ADMINISTRATION, 1890-1930	01 14,200
		MODELS IN RADIATION ONCOLOGY	

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/
 (Arranged numerically by program)

COUNCIL DATE: MAY 1980

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
1 R01 LM 03611-01	NATURAL LANGUAGE ACCESS TO MEDICAL TEXT	01 90,299 02 90,222
1 R01 LM 03623-01	DUAL: GM	01 8,538 02 8,794 03 14,916
1 R01 LM 03624-01	BIBLIOGRAPHY ON DROSOPHILA	01 27,609
BIOMEDICAL COMMUNICATIONS: HISTORICAL REVIEW		
1 R01 LM 03626-01	STRUCTURED TEXT AND THE KNOWLEDGE REPRESENTATION PROBLEM	01 143,685 02 149,900 03 165,741
1 R01 LM 03637-01	CLINICAL LABORATORY TEST USE AND DECISION SUPPORT	01 105,194 02 107,694
1 R01 LM 03651-01	FORMAL ANALYSIS OF A PATIENT DATA INDEX BY COMPUTER	01 67,384 02 82,510 03 89,122 04 96,959 05 106,284
1 R01 LM 03653-01	ANALYSIS OF CLINICAL EXPERIENCE	01 9,938 02 9,974 03 10,843 04 11,835
1 R01 LM 03655-01	DUAL: HS	01 107,280 02 116,637 03 138,442
MEDICAL DATABASES AND CLINICAL DECISIONS		
1 R01 LM 03658-01	DUAL: HL	01 71,040 02 70,642 03 75,756
USING A PHYSIOLOGICAL MODEL AS A RELATIONAL DATA BASE		

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/
(Arranged numerically by program)

COUNCIL DATE: MAY 1980

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
1 R01 LM 03663-01	DUAL: GM	01 56,558
		02 61,283
		03 70,623
APPROACHES TO IMPROVE STATISTICAL INFORMATION USE		
1 R01 LM 03710-01		01 148,458
		02 130,306
		03 143,505
		04 213,981
		05 235,378
INTERNIST: A COMPUTER-BASED DIAGNOSTIC CONSULTANT		
1 R01 LM 03713-01		01 71,448
		02 73,567
		03 77,709
		04 82,089
		05 86,722
COMPUTER-BASED, INTERACTIVE MEDICAL KNOWLEDGE CENTERS		

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL I/
(Arranged numerically by program)

COUNCIL DATE: MAY 1980

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
1 R23 LM 03366-01A1	SINGLE-PEAKED FUNCTIONS AND DIAGNOSTIC SCREENING	01A1 28,541 02 30,175 03 31,284
1 R23 LM 03589-01	NEW COMPUTER-BASED PATIENT CASE SIMULATOR	01 32,750 02 30,000 03 26,600
1 R23 LM 03599-01	USER/COMPUTER INTERFACE IN OBJECTIVE-BASED TESTING	01 34,380 02 29,118 03 22,512
1 R23 LM 03603-01	COGNITIVE REPRESENTATIONS OF MEDICAL EXPERTISE	01 27,366 02 28,239 03 30,381

I/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/
(Arranged numerically by program)

COUNCIL DATE: MAY 1980

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
1 K10 LM 00054-01	FOUNDATIONS OF HEALTH INFORMATION RETRIEVAL	01 30,717
1 K10 LM 00055-01	BRAIN MECHANISMS IN PERCEPTION	01 25,019

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/
(Arranged numerically by program)

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER

1 P01 LM 03388-01A1

SHORT TITLE

COMPUTER-AIDED REFINEMENT OF MEDICAL KNOWLEDGE

AMOUNTS
RECOMMENDED

01A1	102,899
02	119,854
03	125,796

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

B O A R D O F R E G E N T S

Extramural Programs Subcommittee Meeting

May 21, 1980

A T T E N D E E S

Subcommittee Members Present:

Dr. Faye G. Abdellah
Mrs. Bernice M. Hetzner (Consultant)
Dr. Saul Jarcho (Consultant)
Dr. Doris H. Merritt
Dr. John L. Townsend
Mr. James F. Williams II
Ms. Martha E. Williams

NLM Staff Present

Dr. Ernest M. Allen, Associate Director for Extramural Programs
Mrs. Helen S. Bennison, Grants Management Specialist, EP
Mr. Arthur J. Broering, Deputy Associate Director for Extramural Programs
Dr. Jeanne L. Brand, International Programs Division, EP
Mr. Peter A. Clepper, Program Officer, EP
Mrs. Karin K. Colton, Committee Management Assistant
Dr. Roger W. Dahlen, Chief, Division of Biomedical Information Support, EP
Miss Annette B. Green, Grants Data Clerk, EP
Mrs. Frances E. Johnson, Program Officer, EP
Mrs. M. Kathleen Nichols, Grants Management Specialist, EP
Mrs. Marguerite L. Pusey, Administrative Officer, EP
Mrs. Jacqueline B. Watley, Secretary to the Associate Director for EP
Mr. Randall Worthington, Program Officer, EP
Dr. Galina V. Zarechnak, Program Officer, EP

DEPARTMENT OF HEALTH AND HUMAN SERVICES
NATIONAL INSTITUTES OF HEALTH
NATIONAL LIBRARY OF MEDICINE
Bethesda, Maryland

A G E N D A

65th Meeting of the

BOARD OF REGENTS

9:00 a.m., October 9-10, 1980

Board Room
National Library of Medicine

MEETING OPEN: All day on October 9 and from 9:00 to 11:00 a.m. on October 10.
MEETING CLOSED: From 11:00 a.m. to adjournment on October 10 for the review of grant applications.

- I. CALL TO ORDER AND INTRODUCTORY REMARKS Dr. Nicholas E. Davies
- II. CONSIDERATION OF MINUTES OF LAST MEETING TAB I Dr. Nicholas E. Davies
(Orange Book)
- III. DATES OF FUTURE MEETINGS TAB II
1981 Calendar
- Next Meeting: January 29-30, 1981 (Th-F)
- Spring Meeting: May 21-22, 1981 (Th-F)
- Fall Meeting: October 15-16, 1981 (Th-F) or
October 22-23, 1981 (Th-F)
- PLEASE NOTE: ASIS (American Society for Information Science)
Annual Meeting, October 25-30, 1981, in D.C.
- IV. REPORT OF THE DIRECTOR, NLM TAB III Dr. Martin M. Cummings

COFFEE BREAK

- V. NSF FEDERAL COORDINATING COMMITTEE ON SCIENCE, ENGINEERING, AND TECHNOLOGY TAB IV Dr. Harold M. Schoolman
Discussion Board Members
- VI. NMAC'S MOTION PICTURE LOAN PROGRAM TAB V Dr. William G. Cooper
Dr. Faye G. Abdellah,
Discussant
Discussion Board Members
- LUNCHEON CATERED IN CONFERENCE ROOM "B"
- VII. REMARKS BY THE DIRECTOR, NIH Dr. Donald S. Fredrickson
- VIII. VISIT TO PEOPLES REPUBLIC OF CHINA TAB VI Miss Mary E. Corning
Mr. James F. Williams II,
Discussant
- IX. STATUS REPORT ON INTEGRATED LIBRARY SYSTEM TAB VII Mr. Charles M. Goldstein
Dr. Richard S. Dick
Mr. James M. Hahn,
Discussant
Discussion Board Members
- X. MEDLARS III UPDATE TAB VIII Dr. Joseph Leiter
Mr. James F. Williams II,
Mr. Alfred R. Zipf,
Discussants
Discussion Board Members
- COFFEE BREAK
- XI. LABORATORY ANIMAL DATA BANK TAB IX Dr. Henry M. Kissman
Dr. Joe R. Held,
Discussant
Discussion Board Members
- XII. TENTH REGENTS' AWARD FOR SCHOLARSHIP Dr. Nicholas E. Davies
- XIII. DIRECTOR'S AWARD Dr. Martin M. Cummings

R E C E S S

DINNER Bethesda Marriott Hotel
 Cocktails (Cash Bar) 6:30 p.m. Pooks Hill Road
 Dinner 7:30 p.m. "Salons A and B"

SPEAKER: Dr. Ismael Almodóvar
 President of the University of Puerto Rico
 and Member of the Board of Regents

TOPIC: "History and Development of Medical Education in Puerto Rico"

(Transportation arrangements, where applicable, in agenda folders.)

R E C O N V E N E : Friday, October 10, 1980, 9:00 a.m.

- XIV. REPORT OF THE ASSOCIATE DIRECTOR FOR EXTRAMURAL PROGRAMS TAB X Dr. Ernest M. Allen
 - A. Appropriation and Budget Tab A
 - B. Report on Survey of Audio - visual Equipment Tab B
 - Discussion Board Members

- XV. TRAINING GRANT PROGRAM ASSESSMENT FIRST PHASE - DATA COLLECTION TAB XI Dr. Harold M. Schoolman
 - Discussion Board Members

- XVI. GRANT SUPPORT FOR UNION LISTS OF BIOMEDICAL MATERIALS TAB XII Mr. Arthur J. Broering
 - Discussion Board Members

- COFFEE BREAK

- XVII. NEW BUSINESS Dr. Nicholas E. Davies

 MEETING CLOSED FOR THE REVIEW OF GRANT APPLICATIONS FROM 11:00 A.M.

XVIII. SPECIAL APPLICATIONS

A. Special Scientific Project	<u>TAB I</u>	Dr. Roger W. Dahlen
B. Training	<u>TAB II</u>	" " " "
C. Resource Project	<u>TAB III</u>	" " " "
D. Resource Improvement	<u>TAB IV</u>	" " " "

XIX. SUMMARY STATEMENTS

A. Publication	<u>TAB V</u>	Dr. Jeanne L. Brand
B. Special Scientific Project	<u>TAB VI</u>	Dr. Roger W. Dahlen
C. Research	<u>TAB VII</u>	" " " "
D. New Investigator	<u>TAB VIII</u>	" " " "
E. Training	<u>TAB IX</u>	" " " "
F. Resource	<u>TAB X</u>	" " " "
1. Improvement	<u>Tab A</u>	" " " "

XX. ADJOURNMENT

Dr. Nicholas E. Davies

DEPARTMENT OF HEALTH AND HUMAN SERVICES

NATIONAL INSTITUTES OF HEALTH
NATIONAL LIBRARY OF MEDICINE

BOARD OF REGENTS

MINUTES OF THE 65th MEETING
OCTOBER 9-10, 1980

BOARD ROOM
NATIONAL LIBRARY OF MEDICINE
BETHESDA, MARYLAND

DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE

THE BOARD OF REGENTS OF THE NATIONAL LIBRARY OF MEDICINE

Minutes of Meeting 1/ 2/

October 9-10, 1980

The Board of Regents of the National Library of Medicine was convened for its sixty-fifth meeting at 9:00 a.m. on Thursday, October 9, 1980, in the Board Room of the National Library of Medicine, Bethesda, Maryland. Dr. Nicholas E. Davies, Chairman of the Board of Regents, and Attending Physician, Piedmont Hospital, Atlanta, Georgia, presided. In accordance with P.L. 92-463 and the Determination of the Director, NIH, and as announced in the Federal Register on September 8, 1980, the meeting was open to the public from 9:00 a.m. to 5:00 p.m. on October 9 and from 9:00 a.m. to 12:00 noon on October 10, and closed from 12:00 to 12:30 p.m. on October 10 for the review, discussion, and evaluation of grant applications. A Board roster is enclosed under Attachment "A."

Board members present were:

Dr. Ismael Almodovar
Vice Admiral J. William Cox (October 9)
Dr. Eloise E. Clark (October 9)
Dr. Gwendolyn S. Cruzat
Dr. Nicholas E. Davies
Dr. Emmet F. Ferguson, Jr.
Dr. Edward J. Huth
Dr. William D. Mayer
Dr. Charles E. Molnar
Dr. John L. Townsend
Mr. James F. Williams II

Alternates to Board members present were:

Dr. Faye G. Abdellah, representing Dr. Julius B. Richmond
Colonel Alexander M. Sloan, representing Lt. General Paul W. Myers
Colonel Michael J. Scotti, representing Lt. General Charles C. Pixley
Rear Admiral Frances T. Shea, representing Vice Admiral J. William Cox
Mr. William J. Welsh, representing Dr. Daniel J. Boorstin

Unable to attend

Mr. James M. Hahn
Ms. Martha E. Williams

1/ For the record, it is noted that members absent themselves from the meeting when the Board is discussing applications from their respective institutions (interpreted to mean the entire system of which a member's institution is a part) or in which a conflict of interest might occur. Only when an application is under individual discussion will the Board member absent himself. This procedure does not apply to "en bloc" actions.

2/ The Board of Regents, when considering the extramural programs of NLM, also constitutes and serves as the National Medical Library Assistance Advisory Board.

National Library of Medicine staff members attending this meeting included:

Dr. Martin M. Cummings, Director
Mr. Kent A. Smith, Deputy Director
Dr. Harold M. Schoolman, Deputy Director for Research and Education
Dr. Ernest M. Allen, Associate Director for Extramural Programs
Mr. Philip D. Amoruso, Executive Officer
Mr. James W. Barry, Deputy Associate Director, LO
Mr. Harry D. Bennett, Director for Computer and Communications Systems
Dr. Lionel M. Bernstein, Director, LHCNCB
Dr. Jeanne L. Brand, Chief, International Programs Branch, EP
Mr. Arthur J. Broering, Deputy Associate Director for Extramural Programs
Dr. Donald R. Buckner, Chief, Materials Development Branch, NMAC
Dr. William G. Cooper, Associate Director for Planning
Miss Mary E. Corning, Assistant Director for International Programs
Dr. Roger W. Dahlen, Chief, Biomedical Information Support Branch, EP
Dr. Tamas E. Doszkocs, Chief, Technical Services Division, LO
Mr. Charles M. Goldstein, Chief, Computer Technology Branch, LHCNCB
Mr. B. Earl Henderson, Chief, Communications Engineering Branch, LHCNCB
Ms. Betsy Humphreys, Deputy Chief, Technical Services Division, LO
Dr. Henry M. Kissman, Associate Director for Specialized Information Services
Mr. Sheldon Kotzin, RML Program Coordinator
Ms. Linda W. Kudrick, Chief, Materials Utilization Branch, NMAC
Dr. Joseph Leiter, Associate Director for Library Operations
Mr. Robert B. Mehnert, Chief, Office of Inquiries and Publications Management
Dr. A. Donald Merritt, Chief, Health Professions Applications Branch, LHCNCB
Mr. Arthur J. Robinson, Jr., EEO Coordinator
Dr. Warren F. Seibert, Chief, Educational Research and Evaluation Branch, NMAC
Mr. Bernard G. Silverstein, Chief, MEDLARS Support Branch, OCCS
Dr. James W. Woods, Director, NMAC

Others present included:

Dr. Donald S. Fredrickson, Director, NIH
Dr. Richard A. Farley, Deputy Director for Technical Information Systems, Science and Education Administration, Department of Agriculture
Dr. Joe R. Held, Director, Division of Research Services, NIH
Mr. Richard J. Riseberg, NIH General Counsel
Dr. Saul Jarcho, New York Academy of Medicine, Consultant
Mr. Alfred R. Zipf, Executive Vice President and Senior Administrative Officer, Bank of America, Consultant

Members of the public present:

Mr. Jeff Christy, Reporter, "The Blue Sheet"

I. OPENING REMARKS

Dr. Nicholas E. Davies, Chairman, welcomed the Regents, consultants, and guests to the 65th meeting of the Board of Regents. He introduced three new appointed Regents: Dr. Gwendolyn S. Cruzat, Dr. William D. Mayer, and Dr. Charles E. Molnar. He also noted that Vice Admiral William J. Cox, newly appointed Surgeon General of the Navy, was attending in his capacity as ex officio member. Ex officio alternates welcomed for the first time were Colonel Michael J. Scotti (Army), Admiral Frances T. Shea (Navy), and Colonel Alexander Sloan (Air Force). Dr. William G. Cooper, NLM Associate Director for Planning, introduced new senior staff of the National Medical Audiovisual Center: Dr. James W. Woods (Director), Ms. Linda W. Kudrick, Dr. Warren F. Seibert, Dr. Donald R. Buckner, and Dr. Thomas V. Telder (not present). Mr. Harry Bennett, Director of the Office of Computer and Communications Systems (OCCS), introduced a new OCCS branch chief, Mr. Bernard G. Silverstein.

II. CONSIDERATION OF MINUTES OF PREVIOUS MEETING

The Regents approved the minutes of the May 22-23, 1980, meeting without change.

III. DATES FOR FUTURE MEETINGS

The Board will meet next on January 29-30, 1981. The following meetings are tentatively set for May 21-22 and October 22-23, 1981.

IV. REPORT OF THE DIRECTOR, NLM

At Dr. Cummings' request, the Board of Regents observed a moment of silence in memory of Kelly West, M.D., former Board Chairman, who died last summer while on a visit to the People's Republic of China as a member of an NLM delegation.

Although details of the proposed 1982 budget could not be revealed, Dr. Cummings characterized it as essentially unchanged from the 1981 budget (not yet enacted into law) which contains some \$44.7 million and 495 positions for NLM. This amount is only slightly higher than the \$44 million available in FY 1980 and is insufficient to cover the pay raise that went into effect October 1. This, plus inflation, will mean that the funds available for operating programs must be reduced. The only bright spot for 1982 is the possible addition of funds for the MEDLARS III development. Dr. Fredrickson, NIH Director, has indicated that he will reprogram about \$1 million from the overall NIH budget for this effort. Equally as important as the budget, Dr. Cummings said, are the personnel resources allocated to NLM. Over the last five years actual onboard strength has never been equal to the level authorized by Congress. Because of the move of the National Medical Audiovisual Center this year from Atlanta to Bethesda and the loss of many of its staff members, this is more apparent this year than ever before. Although NLM's authorized ceiling is 495, there are actually only 428 employees on board. The Director was not optimistic about recovering all those positions, since there is a partial freeze on hiring.

In the face of declining purchasing power and personnel, it will be necessary for NLM to devise more efficient methods of technical processing and accomplishing routine services. Such improvements will require the Library to make even more use of new technology, especially computers. In this regard, NLM has carried out the Board's recommendation that NLM acquire NIH's IBM 370/168 computers rather than continue the effort to purchase a new system. The computers are now being installed in the new building and will soon be in operation. These

computers, which cost NLM only \$600,000 (the remainder of NIH's payments), will more than double NLM's computer capacity. The computers that are being replaced, NLM's IBM 370/158's are being turned over to NIH's Clinical Center for its use, although physically they will remain at NLM for the next year.

Dr. Cummings reviewed NLM's computerized literature retrieval services as a part of overall science information activities. NLM, although a small institution in the national scene, has an enormous influence in the information field. About 50% of all computerized information services in all areas of science is being done by NLM. Searches on NLM data bases have increased at the rate of 15% per year; the cost per search has dropped from \$60 (pre-online) to about \$3. More than 1500 institutions (1200 in the U.S.) are connected to the NLM system. The online rates have been raised four times since 1971, and we are faced with the need to raise prices again, primarily because the costs of some of the data we receive from organizations like the American Chemical Society are going up dramatically. The growth of international telecommunications networks is putting pressure on NLM to make its data bases available widely throughout the world with these telecommunication networks.

Dr. Cummings commented on the deterioration of public library services in the U.S. Translated into our own arena of concern: How do we deal with efforts of local medical libraries to become more self-sufficient (as now supported by NLM's own grant program) vis-a-vis the sharing of resources through networks? This is a philosophical question we must address, whether to emphasize grants for local institutions or focus on efforts to improve local services through library networks. The new technologies that are rapidly becoming operationally feasible will influence our decisions. Electronic publishing, computer conferencing, electronic mail, videodiscs, and low-cost telefacsimile transmission, for example, will have a great effect on future modes of operation, not only within the U.S. but internationally. NLM's position should be to respect the traditions of the past and maintain the best of the present, but our future survival will depend on how well we adapt the new technologies to the services we provide.

Mr. Kent A. Smith, NLM Deputy Director, briefed the Regents about an impending study of NLM's online retrieval service (MEDLINE) by the Office of Technology Assessment (OTA), a staff office of the U.S. Congress. The review of MEDLINE will be part of a larger study "Strategies for Medical Technology Assessment." Representatives Harley Staggers and Henry Waxman initiated the proposal for the study. Representative Waxman chairs the House Subcommittee on Health and the Environment--the subcommittee that handles the authorization of a number of health programs, including the Medical Library Assistance Act (MLAA). Since the MLAA is up for renewal in 1981, the Waxman subcommittee will take that opportunity to review MEDLINE. The proposal for the study states that there are concerns with the indexing process for MEDLARS and the validity and relevance of references retrieved. It appears that this OTA review was prompted by the "Medical Practice and Information Demonstration Project," known as the "Williamson Study." Dr. Williamson claimed that much of the information being published is not valid and has little relevance to medical practice, and that much that is relevant is not readily accessible. The Public Health Service Consultant Panel that reviewed the Williamson Study had serious reservations about its methods and conclusions as they related to MEDLARS. The complete study by OTA will take about 15 months and will cost \$325,000. A preliminary report on the MEDLARS part of the study is to be submitted to the Congress next March, before hearings on the Medical Library Assistance Act. Mr. Smith will keep the Regents informed about the progress of the study. Following Mr. Smith's presentation, Mr. Welsh of the Library of Congress (LC) offered to have a representative of LC's Congressional Research Service, which has used MEDLINE frequently since 1973, provide information to those conducting the OTA study about LC's experience with the NLM online services. Dr. Huth commented that he was on the panel mentioned by Mr. Smith, that reviewed the Williamson study, and he confirmed that the panel was indeed severely critical of the study's methodology and conclusions.

V. NAMC's MOTION PICTURE LOAN PROGRAM

Dr. William G. Cooper, NLM Associate Director for Planning, described the Center's film booking and loan program as it developed over the years. The film loan program began as an inhouse operation, became a partially contract-operated activity, and is now completely contract-operated. Originally a loan program for both videotape and 16mm film, it is now for film only. NLM plans to change from a free advanced booking and loan service to a cost recovery operation. The last catalog of loan titles was published in 1977; a new edition will be published in 1981. The audience reached each year by NMAC-loaned audiovisuals is estimated at two million: an average of 40 health professional viewers for each of the 50,000 items loaned annually. The loan service was discontinued temporarily in 1979-80 because of the move of the Center to Bethesda. As a result, there were only 18,000 loans in FY 1980. There is an emphasis now on weeding the collection of little-used items and adding new titles. The little-used items will be transferred to NMAC's archives; the nonprint archival program, Dr. Cooper said, might be the topic of a future report to the Board of Regents. Plans call for the new film program to begin by April 1981, on a cost-recovery basis, operated by a contractor, and with a new catalog available by the summer.

Dr. Cooper next described plans for videotape distribution. These will be handled experimentally on an interlibrary loan basis, much like NLM's print collection. After a period of interlibrary loan operation, there will be an evaluation to see if this is the optimum distribution mechanism for videotapes. The videotapes available will be selected from among the 9,000 listed in AVLINE (audiovisuals online). The loan program will be operated by NMAC staff in Bethesda and NMAC hopes to involve the Regional Medical Libraries and Resouce Libraries.

Following Dr. Cooper's presentation, Admiral Cox suggested that there should be at least a two-year experimental operation of the videotape loan program to provide sufficient data to evaluate it. Dr. Abdellah commented that the Regents' subcommittee that reviewed these plans agrees that the institution of an \$8.50-\$10 handling charge for advanced film booking and operation under a contract are reasonable approaches to continuing the 16mm film loan program.

VI. NSF COMMITTEE ON SCIENCE, ENGINEERING, AND TECHNOLOGY

Dr. Harold M. Schoolman, NLM Deputy Director for Research and Education, described a report issued by an ad hoc working group of the Federal Coordinating Committee on Science, Engineering, and Technology. The report resulted from studies commissioned to examine the relationship of the public and private sectors in scientific and technical information (STI). Dr. Schoolman is a member of the ad hoc working group. As background to the report, Dr. Schoolman said that the most important question today in the area of STI may be the relationship between the public and private sectors. Information has become one of the nation's leading industries with enormous economic implications. There are two opposing viewpoints: one which views information strictly as a commodity to be bought and sold in the marketplace, and another that claims that the benefit to society of information must sometimes be taken into account rather than leaving information entirely to the impersonal marketplace forces of supply and demand. Discussions of private versus public information activities frequently get off the track because these antipodal views leave little common ground for rational discourse. Dr. Schoolman said that the report of the ad hoc group may turn out to be valuable because it crystallizes and rationalizes the basic arguments for each side and provides a base of understanding from which discussion may proceed.

The report argues that, in the absence of important "externalities," free market forces can competently govern the flow of scientific and technical information. However, certain influences such as economies of scale, potential for monopoly, or overriding social or economic benefit can act as "externalities" whose importance is greater in the balance of consideration than the intrinsic value of the commodity (STI) to either the buyer or the seller. The question

then becomes how to deal with these externalities, including government intercession to correct market inequality. The study suggests that the government has three choices: it can operate, regulate, or subsidize. In the area of STI, the government has done all three- -it subsidizes many secondary indexing services, it regulates industry, and it operates STI systems (such as NLM). Subsidization raises the question of who is to receive it—the producer, the distributor, the ultimate user? There are also problems related to government budget processes and projections in providing subsidies. Although subsidy may be successfully employed in starting up an STI service, it is rarely a satisfactory vehicle for long-range STI operation. Regulation, Dr. Schoolman said, is described in the report as usually an attempt to correct some perceived inequity in the private sector. It frequently gives rise to other problems, so that few in either the private or public sector are enthusiastic about regulation as applied to STI. Some feel, however, that either subsidization or regulation is to be preferred to government operation. Can government operation be justified by the need to provide freedom of access to STI in the face of externalities? In fact, the operation of information systems has been a prime government activity for many years. In STI, the government has frequently been the earliest and/or only producer and disseminator of information- -both through contract and by direct operation. Many people will agree that where capital investment to create an STI system is large, and the potential audience relatively small, the government should necessarily be involved- -either as a subsidizer or an operator. Controversy arises about whether an STI service, once developed by the government, should be turned over to private industry to operate. The report prepared by the ad hoc working group, Dr. Schoolman said, does an admirable job in focussing on the nature of the problems and delineating the areas of controversy. He said the evidence is overwhelming that any resolution to the problem will be a pluralistic one, and that the basic resolution will come down to how to most effectively use the resources of the private and public sectors in solving STI problems and providing access to STI.

Following Dr. Schoolman's presentation, Dr. Henry M. Kissman, Associate Director for Specialized Information Services, discussed a practical example of a problem related to the private versus public sector controversy. The American Chemical Society (ACS) has announced radical price rises for users of the products and services of Chemical Abstracts Service (CAS). This means that the costs to users of NLM's CHEMLINE file will also increase dramatically, because CHEMLINE file content is obtained under license from the CAS. The rise is from \$4/hour (last year) to \$35/hour in 1981 and possibly to \$110/hour in three years. The ACS has raised its prices because, it says, that overall its revenues are declining- -subscriptions to its publications are going down while publishing costs are rising steeply, although use of its computer files is rising. The CAS Registry System from whence CHEMLINE file content is taken was supported initially with funds from the federal government. The Chemical Abstracts Service is building an online search system for the entire registry files- -some five million compound records. The government's Chemical Substances Information Network (CSIN) is planning to include about one million of these compounds and the CAS is concerned about this as a competitor for their search service. NLM presently licenses (with restrictions) CAS files for CHEMLINE, but these licensing arrangements will have to be changed if the files are to be used in CSIN. Dr. Kissman said that it is his opinion that the recent actions by CAS are designed not only to increase revenues but also are an attempt to limit competition from alternative online systems.

VII. REPORT OF THE DIRECTOR, NIH

Dr. Donald S. Fredrickson, NIH Director, and Mr. Richard J. Riseberg, NIH General Counsel, described new "debarment" regulations published by the Department. Under these regulations, institutions and individuals convicted of wrongdoing or failing to honor the terms of government grants can be barred from receiving financial aid from the Department. The regulations set out a formal process to be followed and there is a heavy burden on the government to prove its case before a hearing examiner. Dr. Fredrickson emphasized that the new regulations are not in response to any "epidemic of crime in science" but are an outgrowth of increased

post-Watergate attention on the part of the public and the media to accountability of federal funds and any wrongdoing that may arise from them. The actual number of cases subject to the regulations will be very small; it is quite rare that an NIH grantee will be faced with debarment proceedings. Dr. Fredrickson ended his remarks by commenting on his recent trip to Africa as part of a U.S. science delegation headed by Dr. Frank Press.

VIII. VISIT TO PEOPLE'S REPUBLIC OF CHINA

Miss Mary E. Corning, NLM Assistant Director for International Programs, reported on the July 1980 visit of the U.S. Delegation on Biomedical Information to China. The delegation led by Miss Corning, also included Dr. S. Richardson Hill, Jr., Dr. Kelly M. West, Mr. James F. Williams II, and Dr. Ching-chih Chen. Miss Corning said that NLM's contacts with China resumed soon after President Nixon reopened relations. Dr. Cummings visited China in 1978 as a member of an AAAS delegation and began discussions for an arrangement for NLM to receive several Chinese professionals who would catalog NLM's collection of Chinese medical literature in return for training here. The NLM delegation had as its purpose to observe how medical information is utilized in various settings in China, to learn about Chinese research on communication techniques, to discuss with the Chinese any potential areas for cooperation, and to conclude the quid pro quo arrangement for cataloging NLM's Chinese collection and training set in motion by Dr. Cummings' earlier visit. Miss Corning showed a series of slides taken on the trip, and she described the activities they observed. The group visited many institutions--medical schools, medical information institutes, institutions concerned with scientific and technical information broadly, and hospitals.

The Chinese Academy of Medical Sciences contains what is called the Central Medical Library of China. It is a combination of the libraries of the Peking Union Medical College and the Central Institute of Health. Although designated as the national resource for medical literature, it has not assumed that responsibility yet. The Central Medical Library subscribes to some 2000 biomedical journals. The Institute of Medical Information, of which the Central Medical Library is a part, has seven departments with wide-ranging responsibilities: three are concerned with research, and one each with production of journals, coordinating foreign medical STI, nonprint materials, and Chinese traditional materials.

Among the topics of discussion with the Chinese were the desirability of including English abstracts in Chinese journals. Of the 14 selected for inclusion in Index Medicus, two are in English, three have English abstracts, and the remainder are totally in Chinese. As a result of the visit, Miss Corning discovered that NLM is receiving only 24 of the 51 significant biomedical journals published in China; we are initiating exchange arrangements to acquire the others. The Chinese have translated a number of U.S. publications, including NLM's Medical Subject Headings and American journals. Miss Corning also reported that NLM had received earlier this year, under WHO auspices, three Chinese fellows for three months' training.

Following Miss Corning's presentation, Mr. Williams commented that although Chinese information and library facilities are frequently unsophisticated and their staff lack training, the material they have is up-to-date, well organized, and well cared for. The Chinese have no real network and there is a problem with various regional dialects and the complex written language. The Chinese are aware of their deficiencies and are dedicated to remedying them and employing modern technology (e.g., photocopy machines).

Admiral Cox commented that the Chinese are suffering from their earlier attempts to copy the Soviet industrial and information systems. The U.S. should be aware that in providing our STI technology to the Chinese we may enable them to make tremendous strides--surpassing even the success of Japan and Germany. Mr. Welsh noted that although there is much modernization activity in China today, there is little overall coordination and planning.

The Board of Regents unanimously passed a resolution of homage to Kelly M. West, M.D., to be sent to his mother. (Attachment B). Dr. West was tragically stricken with a fatal cerebrovascular accident while a member of the U.S. delegation in China.

IX. STATUS REPORT ON THE INTEGRATED LIBRARY SYSTEM

Mr. Charles M. Goldstein, Chief of the Lister Hill Center's Computer Technology Branch, said that the Integrated Library System (ILS) has passed a milestone in its development--the ILS Version 1.0 is now available for purchase through the National Technical Information Service. The ILS, begun in 1977, is a computerized system that can be adopted by libraries (including health science libraries) at all levels to improve their services, allow better management of collections, and promote effective resource sharing. The initial goal of the ILS project was (1) to develop within the Lister Hill Center an inhouse capability in library automation and (2) to develop a model library automation system that would be compatible with and build on the already existing medical library and online network. There were in existence several computerized "turnkey" systems available from commercial vendors--for separate functions such as circulation and acquisitions. The problem addressed by the Lister Hill Center was how to integrate the many library functions into one computer-supported system. An important aspect of this project was to make the Integrated Library System available at least cost on minicomputers. Version 1.0 of the ILS has the following: catalog access integrated with circulation system and serials check-in. Future enhancements will include serials control, acquisitions, cataloging, authority file, network access, and patron interface.

Following Mr. Goldstein's presentation, Dr. Richard Dick reviewed the operation of the ILS as it is used at the Army Library, Pentagon. Although only 2% of the Army Library's one-million volume collection is in ILS, the system is operating quite successfully there. They use eight terminals and the response time is under one second. The cost of the hardware for the Army Library ILS was \$73,000 (although ILS can operate on hardware costing much less). The ILS is relied on at the Army for circulation control, serials check-in, and bibliographic maintenance. The Army Library is regularly inputting their OCLC tapes of cataloged information.

Following these presentations, Mr. Williams commented that the ILS is a good example of the public sector/private sector issue discussed by Dr. Schoolman earlier. Mr. Williams strongly supports NLM's research and development effort to develop the ILS. Dr. Schoolman noted that there have been discussions by LHC advisors on how far into the marketplace should the Library go in developing and making available the ILS. Is it at a point where private enterprise can take the ILS, improve and market it? This is difficult to determine.

X. MEDLARS III UPDATE

Dr. Joseph Leiter, NLM Associate Director for Library Operations, described MEDLARS III as an effort to provide both a more fully automated system for NLM's internal functions and improved retrieval and technical processing services for the medical library community. The functional specifications for MEDLARS III have been written and occupy two large volumes. These specifications are a detailed description of all aspects of NLM's internal and external operations that will be impacted by the new system. The next step is a thorough systems analysis that will concentrate on problems to be encountered on the implementation of the functions and establish priorities to develop a sequence for implementation. This systems analysis will lead to the development of a request for proposal (RFP) for a contract to design and implement MEDLARS III. Dr. Leiter noted that the Library can take pride in the fact that the functional specifications for MEDLARS III were prepared entirely by NLM staff; the original MEDLARS was primarily a contractual effort, and MEDLARS II was combined NLM staff and contractor effort.

There are several problems that must be addressed over the next few months, concurrent with the systems analysis mentioned above. One is the need to develop methods to directly input online indexing and cataloging data, in MARC format, without the requirement of labor-intensive separate keyboarding. Work has already started on this. Another is an effort to evaluate existing operating library systems to see how they carry out the functions we are interested in and if their software is adaptable to NLM's functions. NLM is investigating the Washington library network.

Dr. Leiter said that two senior candidates are under recruitment to work on MEDLARS III. A number of staff within NLM will be assigned to the project, including five to eight librarians and systems analysts. Over the next two to three years several parts of MEDLARS III should be in place and by 1983 we will begin investigating the electronic document storage and retrieval system, now under development by the Lister Hill Center, for possible incorporation into MEDLARS III.

Following Dr. Leiter's presentation, Mr. Williams described MEDLARS III as the "promised land" of librarianship. He commended the MEDLARS III Task Force staff members on the tremendously difficult task of organizing and setting forth the functional specifications. Mr. Zipf said he reviewed the specifications carefully and was encouraged to see that NLM was in fact planning far enough into the future. He also complimented the "especially bright, energetic, and imaginative young Task Force staff."

XI. LABORATORY ANIMAL DATA BANK

Dr. Henry M. Kissman, NLM Associate Director for Specialized Information Services, described the history, development, and present status of the Laboratory Animal Data Bank (LADB). LADB is a computerized online information file, available to the scientific community since March 1980, containing baseline biomedical data from experimental control animals of species and strains commonly used in laboratory research and testing. At the present time it contains almost 900,000 observations. It provides biomedical investigators with rapid access to information and normal values on hematology, clinical chemistry, pathology, environment and husbandry, and growth and development. LADB is administered by NLM, sponsored by the DHHS Committee to Coordinate Environmental and Related Programs, and funded by these two organizations and the National Cancer Institute, the National Center for Toxicological Research, the Environmental Protection Agency, and the Interagency Regulatory Liaison Group. LADB services are provided by Battelle Columbus Laboratories under contract.

Data for LADB are contributed voluntarily by industrial, academic, and governmental laboratories. LADB underwent scientific review by a committee under the auspices of the Institute of Laboratory Animal Resources (National Academy of Sciences) which recommended that a review mechanism be set up for the content and usage of LADB. As a result, review panels were set up under a contract with the Federation of American Societies of Experimental Biology (FASEB), and the Toxicology Information Subcommittee formed another review panel staffed mostly by NIH scientists. Usage of LADB may be either online (\$20 per hour) or offline by requesting custom-tailored searches from Battelle (\$50-\$300 depending on the complexity of the search). Charges are billed and collected by the National Technical Information Service. Battelle has trained some 50 individuals in six training sessions on the use of LADB.

Dr. Kissman noted several problem areas with LADB. The most serious is funding, since the National Cancer Institute has decided not to provide additional money for it. This decision by NCI did not reflect any lack of confidence in the system but rather the belief that funding should come from other parts of NIH. Present funding will support LADB through January 1981; about \$500,000 will be required for the remainder of fiscal year 1981. Data acquisition is also a problem, Dr. Kissman said. More data are needed from government agencies and

industrial laboratories if LADB is to reach its maximum potential. The very basic question has been raised as to whether the NLM is the proper organization from which to run a nonliterature-based system like LADB. Another fundamental question has to do with the cost-effectiveness of LADB. To address these and other issues it has been proposed that there be a review of LADB over the next three months by scientists who are familiar with the requirements of animal testing and by representatives of the various funding agencies. FASEB would be asked to impanel such a group.

Following Dr. Kissman's presentation, the Regents heard from Dr. Joe R. Held, Director of NIH's Division of Research Services. Dr. Held, a veterinarian, was asked by Dr. Cummings to review the LADB project and serve as an unofficial adviser to NLM on its status and prospects. Dr. Held talked to many individuals involved in using, funding, and operating LADB. Progress has been made in obtaining data, especially in this last year. However, it is his opinion that the problem will persist. A partial solution would be for LADB to contain selected published information; it might also contain the backup data on experimental animals referred to but not published in specific journal articles. Dr. Held suggested that there be a trial of LADB by NIH scientists, possibly using the NIH library as an access point. He agreed with Dr. Kissman on the need for a study of LADB, but felt that the system has not been publicly available long enough for data to provide a fair evaluation. Dr. Held believes that NLM is the logical organization to provide LADB services.

Following Dr. Held's presentation, there was a general discussion of LADB by the Regents. In response to a question by Dr. Townsend, Dr. Held said that the data collection form used may appear too detailed and may deter some potential donors of data. Colonel Scotti noted that as LADB gets bigger and the costs of animal experiments increase, use will increase and the user charges collected may offset to some degree the amount of Federal money required to maintain the system. Admiral Cox said that there are a whole range of hard questions that need answering concerning the cost-effectiveness of LADB before decisions can be made about its future.

Dr. Cummings voiced his concern about LADB--not about the quality of the staff and leadership of the program but about its ultimate utility and cost-effectiveness. He has doubts about NLM being the proper source of funding to support it. He supports Dr. Held's analysis of the problems of data collection. He also agreed with an earlier comment by Dr. Almodovar that NIH's Division of Research Resources has a stake in the outcome of the project and should become more involved in it. The National Toxicology Program should also become more involved in its support. NLM simply cannot afford the \$70,000 per month needed to support LADB, Dr. Cummings said. The sense of the Board was expressed by Dr. Mayer in supporting the proposed critical evaluation of LADB and NLM's future role in it, taking into account the questions and discussions raised by the Board.

XII. PRESENTATION OF AWARDS

Board Chairman Nicholas E. Davies presented the Tenth Regents Award for Scholarship to Miss Mary E. Corning, NLM Assistant Director for International Programs. The award was given in recognition of Miss Corning's research and scholarship in preparing the book A Review of the United States Role in International Biomedical Research and Communications: International Health and Foreign Policy. Dr. Davies praised her book as a "monumental work that contains an extraordinary wealth of material that will prove valuable to historians, internationalists, and health professionals interested in global aspects of public health and medical research."

Dr. Cummings presented the 1980 NLM Director's Award to Dr. Joseph Leiter, NLM Associate Director for Library Operations. Dr. Cummings cited Dr. Leiter for his outstanding leadership in directing the special MEDLARS III Task Force which has been developing plans for automating NLM's activities during the coming decade.

XIII. REPORT OF THE ASSOCIATE DIRECTOR FOR EXTRAMURAL PROGRAMS

Dr. Ernest M. Allen briefly discussed the NIH procedure for inactivating approved grant applications that are below a certain cutoff score, instead of carrying them over to the next year. The applications involved are those where it is absolutely certain that funds will be available beyond a priority score predetermined annually by NIH.

Dr. Allen announced that Dr. William D. Mayer, one of the new members of the Board, had been appointed by Chairman Davies to join the Extramural Programs Subcommittee.

Dr. Allen then described the Extramural Programs' FY 1980 distribution of funds and the FY 1981 projected budget, based on the recently passed "Continuing Resolution." Extramural Programs is facing the predicament that only limited funds will be available for competing grants, largely due to uncontrollable factors. In FY 1980 slightly less money was available for competing applications than for noncompeting. In FY 1981, however, noncompeting renewals show a much greater increase at a more than 2:1 ratio. Some of the reasons for this increase are increased stipends for Training Grants, increased costs of Improvement Grants, mounting inflation, the much larger requirements for continuing computers-in-medicine grants, and the recommendation by the Board to support the continuing Training Grants at a level of about \$1.75 million. Extramural Programs had to take the unfortunate step in the five competing Training Grants of reducing the number of trainees by 28%. Dr. Abdellah referred to data on postdoctorals in a recent report written by GMENAC (Graduate Medical Education National Advisory Committee) that Secretary Harris released on September 23. It includes a very interesting analysis that shows a decided drop in MDs going into postdoctoral research and a large increase of non-MDs seeking postdoctorals. Dr. Allen explained that NIH is now surveying this trend. One obvious cause for the drop in MDs is the considerably higher income in practice as contrasted with salaries in research programs.

Mr. James Williams touched upon the local self-sufficiency aspect of many of the programs that NLM has encouraged and supported over the years. Because NLM's grant programs ultimately improve the delivery of health information to all members of the health-science community, the time has come to stop using Federal dollars to deliver documents. These funds could be better used to assist local communities to get into the mainstream of information, control, and technology rather than support the delivery of documents to individuals. Distribution of grant funds should move in the direction of meeting the objectives set by NLM. Support should be provided where it will do the greatest good for the greatest number in terms of the greatest national need.

Dr. Cummings responded to Mr. Williams' concerns and noted that there is a clear difference in the cost-effectiveness of the use of the literature and what is needed to be held in local facilities versus regional or larger institutions. He pointed out that user patterns should be analyzed so that local self-sufficiency is maintained by supporting core collections for the reader and supporting an entirely different kind of collection for the larger lending library. This has bearing on a very serious misunderstanding that has resulted from reports by Goffman and Warren and to some extent from the Library's own reports on the Viral Hepatitis Data Base. Goffman and Warren have shown that it is necessary to read only six journals to keep abreast of the literature, such as schistosomiasis; any additional journals contribute very little. NLM's staff has shown that one can keep abreast of what is happening in the field of viral hepatitis by following just 15 to 18 journals. The result has been that people have taken those data and concluded that only a few journals are needed to maintain a medical library. Dr. Cummings suggested that more critical analysis of these issues is necessary, both in terms of use and cost, before it is known how to design the medical library system of the future. Dr. Cummings asked Board members to share their experiences in this area with him.

Dr. Allen noted in conclusion that at the upcoming January Board meeting a report of a survey on the use of audiovisual equipment, purchased from grants awarded by NLM, will be

presented. Dr. Allen also noted that another subject to be reported on at the January meeting will be an in-depth study of the Library's History of Medicine Grants.

XIV. TRAINING GRANT PROGRAM ASSESSMENT - FIRST PHASE

Dr. Harold M. Schoolman, Deputy Director for Research and Education, described first in a series of examinations of the Training Grant Program which will conclude with recommendations and directions about the Program's future at the May 1981 meeting.

The Board's interest in this subject began some ten years ago when it reviewed the report of the Stead Committee. This Committee addressed research, education, and patient care and determined that their future lay in a greater integration of computer science and medical science. Manpower was the greatest need, and the Board recommended a Training Program. At that time no health institution in this country had a division or department with academic faculty whose primary interest was the integration of computers and medicine. The Stead Committee was interested in creating a means of alleviating what they considered to be the main hindrance, namely, manpower. But they were interested in trying to do several other things: promote research in this field, and even more, try to promote greater interaction between the health scientist and the computer scientist. Since 1972, Dr. Schoolman noted, a total of 13 Training Grants have been awarded by NLM, of which ten are still active. Specific questions need to be asked: How much research, exclusive of hospital management systems and other computer-in-medicine activities that are not really related to the information management problem, has been produced and stimulated by the Training Grant programs? There are no accessible data on this subject.

Dr. Schoolman presented data for the period of 1972 through 1979 on funding received by a number of universities from government agencies for all computer-in-medicine activity in the health sciences, one part of which is the NLM Training Grant activity. Taking all institutions together, there was a reasonably steady increase during the 9-year period in support of computer-in-medicine research. However, there was almost no difference in the figures between those that had received NLM training grants and those that had not. Dr. Schoolman noted that it was not possible to state that the training grants have been without influence on the research activity within the institution; it seems more reasonable to conclude that the training award constitutes an element which in effect reflects the changing environment and support for the activity. And this conclusion is reflected not only in institutions where training grants were used, but also in other institutions across the country in general.

Of the trainees who held doctoral degrees prior to entering the Training Program, 45 were MDs and 15 Ph.Ds, 10 of which were in health-related sciences. Of the 94 with predoctoral degrees, most were in the computer sciences or biological sciences. Dr. Schoolman stated that of 130 current positions of trainees with stipends 44 are on faculties; 13 in private practice; 25 in industry (neither government nor academia can compete with industry with regard to income and job opportunities, an issue which will be discussed in detail at the January meeting); 27 are in training; and the rest in other fields. Of the graduates of the program, 56 are involved in the field of computers in medicine, four are peripherally in the field, 49 in teaching, and 42 in research in this area. One of the interesting findings of this study is that there is a fairly large number who participate in the Training Program as part of their normal activity without stipend support from NLM.

In summarizing his remarks Dr. Schoolman pointed out the following: First, in general the support in the field has improved since 1972. Second, the institutions in which training programs have occurred have progressively been involved in computer-in-medicine research at about the same rate as comparable institutions around the country. Third, a significant proportion of the trainees have returned to faculty and teaching positions and remain involved in the field. The number of trainees, however, who came from senior faculty was very small; almost all the

MD trainees were essentially resident-level when they started. Just recently Tufts created a Division of Clinical Decision-Making within the Department of Medicine and part of the contributions to that action is attributable to the Training Program. Dr. Schoolman emphasized that at this time the pursuit of this activity as a primary educational and research activity within the academic community does not exist. Dr. Townsend asked what impact this program has or will have on the educational process. Dr. Schoolman responded that in most instances there has been an introduction of a small amount of curricular lecture time and the development of electives which previously did not exist. Dr. Mayer asked for more data on available funding and if there is a continued need for the stipend in order to have individuals in the program.

XV. GRANT SUPPORT FOR UNION LISTS OF BIOMEDICAL INFORMATION MATERIALS

Mr. Arthur J. Broering, Deputy Associate Director for Extramural Programs, presented for policy consideration a special issue on NLM grant support for the preparation of union lists on biomedical information. This review is prompted by the fact that two related applications are pending Board review at this meeting: One for developing a list of monographs and audiovisual materials, the other for audiovisual materials only. Mr. Broering noted that the pending applications were submitted in good faith under the 1971 policy and have received high ratings by the scientific review group.

The Board policy that has been in effect since June 1971 states that there will be no funding of incompatible union lists containing detailed information on local serial holdings for multiple libraries. Simple locator tools, as part of document delivery, are supportable. Mr. Broering emphasized that this restriction applies to registering the holdings of serials and does not apply to monographs and audiovisuals. The reason for establishing this restrictive policy originally was because libraries developed union lists independently without regard to compatibility with a future national system. The library community, with some justification, considers it anomalous for NLM to encourage interlibrary cooperation while denying support for the very tools which must permit cooperative efforts.

Mr. Broering presented the following recommendation for the Board's consideration: 1) Rescind the present policy. 2) Establish no restrictive policies for support of union lists, whether for serials, or audiovisuals. 3) Develop guidelines that address the design features most likely to be incorporated in a future national system.

Mr. Williams emphasized that the community wants guidelines first and seed money second. He expressed his strong support for the recommendations and hoped that Extramural Programs staff would set a time limit for the development of the guidelines, possibly by the January Board meeting. Dr. Mayer was concerned that if guidelines were issued, applications will be coming in for more than seed money, and unless the criteria on this issue are announced right from the start on how much funding can be expected, expectations will be raised without the means to fulfill them. Mr. Williams then introduced a motion requesting staff (1) to develop guidelines on the bibliographic control elements that should be included for union lists of monographs, serials, and audiovisuals, and (2) to come up with recommendations on the level of support that NLM envisions. The motion was passed unanimously.

Addressing himself to the two pending applications, Mr. Williams recommended that they not be deferred, because they were submitted in good faith under NLM's present rules. He pointed out that the two proposals were submitted as demonstration projects and will be very helpful in assisting the library community in demonstrating the viability of funding future projects like these. The Board moved that the two applications be accepted as received from the scientific review group. Dr. Mayer and Dr. Almodovar abstained.

XVI. NEW BUSINESS

Dr. Jarcho introduced a draft resolution regarding the January 1979 ruling of the U.S. Supreme Court in the case of the Thor Power Company versus the Internal Revenue Service. According to this ruling, the valuation of stock stored in warehouses can no longer be reduced for tax purposes. The Internal Revenue Service decision applies this ruling to items of any kind, whether lawn mowers, tools, or books. It is believed that application of the ruling to books will have a serious adverse effect on libraries and on the publication of scholarly and scientific books. Dr. Jarcho emphasized that many publishers have decided to dispose of their reserve stock either by forced sale or by incineration. The Board unanimously passed a resolution (Attachment C) asking that it be forwarded to The Secretary, HHS, and other appropriate parties.

The Chairman then advised the Board of Dr. Almodovar's invitation to hold the January 1982 Board meeting at the University in Puerto Rico in San Juan. Dr. Davies asked Dr. Cummings to explore the possibility and report back to the Board on its feasibility.

MEETING CLOSED FOR THE REVIEW OF GRANT APPLICATIONS

XVII. REVIEW OF PENDING APPLICATIONS

Before proceeding with the consideration of pending applications, Dr. Dahlen informed Board members of confidentiality and conflict-of-interest procedures and reminded them to sign, at the conclusion of the grant application review, the statement certifying that they had not participated in the discussion of any application where conflicts of interest might occur.

The Board concurred with the recommendations of the Extramural Programs Subcommittee. A total of 50 applications was reviewed, of which 26 were recommended for approval, 19 for disapproval, and 5 for deferral. Grant applications recommended for approval by the Board are listed in the summary actions (Attachment D). Interim actions taken by EP staff since the May meeting of the Board were noted.

XVIII. ADJOURNMENT


The meeting was adjourned at 12:30 p.m., Friday, October 10, 1980.

Wednesday, October 8, 1980, 2:00 to 4:30 p.m.
(EP Subcommittee--List of Attendees under Attachment E)
October 8, 1980, 2:00 to 3:30 p.m.
(LHC/NMAC Subcommittee--List of Attendees under Attachment F)
Thursday, October 9, 1980, 9:00 a.m. to 5:00 p.m.
Friday, October 10, 1980, 9:00 a.m. to 12:30 p.m.

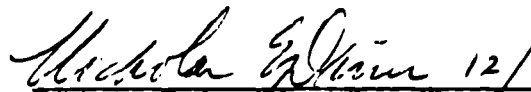
ACTIONS TAKEN BY THE BOARD OF REGENTS

1. The Board passed a resolution of homage to Dr. Kelly M. West and requested that it be sent to his mother (Attachment B).
2. The Board presented the Tenth Regents' Award for Scholarship to Miss Mary E. Corning, NLM Assistant Director for International Programs.
3. The Board recommended that two pending applications, one on developing a union list of monographs and audiovisual materials and one on audiovisual materials only, be accepted as received from the scientific review group.
4. The Board passed a motion requesting staff (1) to develop guidelines on the bibliographic control elements that should be included for union lists of monographs, serials, and audiovisuals, and (2) to come up with recommendations on the level of support that NLM envisions.
5. The Board passed a resolution regarding the January 1979 ruling of the U.S. Supreme Court in the case of the Thor Power Company versus the Internal Revenue Service (Attachment C).
6. The Board concurred with recommendations of the Extramural Programs Subcommittee. Grant applications recommended for approval are listed in the summary actions (Attachment D).

I hereby certify that, to the best of my knowledge, the foregoing minutes and attachments are accurate and complete.

 12/5/80

Martin M. Cummings, M.D. (Date)
Executive Secretary

 12/9/80

Nicholas E. Davies, M.D. (Date)
Chairman

CHAIRMAN

DAVIES, Nicholas E., M.D. (8/3/81)
 Attending Physician
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 and Professor of Physiology and
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WILLIAMS, Martha E. (8/3/82)
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 Washington, DC 20372 202-254-4153

Alternate

SHEA, Frances T., Rear Adm., NC, USN
 Commanding Officer
 Naval Health Sciences Education
 and Training Command
 National Naval Medical Center
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Board of Regents' Roster - continued

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DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE
NATIONAL INSTITUTES OF HEALTH
BETHESDA, MARYLAND 20206

NATIONAL LIBRARY OF MEDICINE

October 9, 1980

Mrs. W. K. West
223 Northwest 33
Oklahoma City, OK 73188

Dear Mrs. West:

As current Chairman of the Board of Regents, National Library of Medicine, it is my privilege to send you the attached official statement of the Board's high regard for Kelly.

Please accept my personal as well as this official expression of sympathy.

Sincerely yours,

/S/

Nicholas E. Davies, M.D.

The Board of Regents, National Library of Medicine, commemorates in its meeting today, October 9, 1980, the outstanding contributions of its former member and chairman, Kelly M. West. The Board pays homage to this truly good friend and colleague, not only for his scholastic achievements which were myriad but also for his unselfish commitment to the cause of medicine. The members of the Board shall remain ever grateful to Kelly for his leadership, his tireless interest in the welfare and objectives of the National Library of Medicine, and his steadfast devotion to the health and welfare of man.

The Board expresses its sincere and heartfelt sympathy to Kelly's mother and sisters in this time of their sorrow. May there also be joy for them, however, in the knowledge that he died as he lived, generously giving himself in the service of others.

**RESOLUTION OF THE BOARD OF REGENTS OF THE
NATIONAL LIBRARY OF MEDICINE**

OCTOBER 9, 1980

The Board of Regents of the National Library of Medicine expresses deep concern about certain implications that may result from the decision made by the Internal Revenue Service in the case of the Thor Power Tool Company. It is believed that this decision will have a serious adverse effect on the publication of scholarly and scientific books and will be harmful to libraries, readers, scholars, and scientists.

It is requested that The Secretary of Health and Human Services support corrective legislation and any other suitable action that will provide relief from the damaging effects that may result from this situation. We believe that this resolution should also be transmitted to The Secretary of Education and the National Commission on Libraries and Information Science.

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/
(Arranged numerically by program)

COUNCIL DATE: OCTOBER 1980

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
2 R01 LM 02353-06	DISSEMINATION OF MOLECULAR DATA FOR BIOMEDICAL USE	06 19,750 07 18,945
3 R01 LM 02813-03S1	LOEB CLASSICAL LIBRARY, HIPPOCRATES, VOLUME FIVE	03S1 11,000
1 R01 LM 03478-01	THE NINE PICTURE SERIES: A CRITICAL REVIEW	01 16,752 02 17,058
1 R01 LM 03670-01	CLINICAL INFORMATION SEARCHING-RESEARCH AND INSTRUCTION	01 29,522 02 30,175 03 40,235
1 R01 LM 03683-01	THE EARLY HISTORY OF NUCLEAR MEDICINE AT BERKELEY	01 11,634 02 13,664 03 14,247
1 R01 LM 03688-01	COMPUTER BASED CLINICAL DECISION ANALYSIS	01 27,164 02 27,743 03 29,549
1 R01 LM 03689-01	GENETIC VARIATIONS OF DROSOPHILA MELANOGASTER	01 54,305 02 46,362 03 55,013
1 R01 LM 03697-01	EDITING NORWOOD'S AMERICAN MEDICINE AND THE CIVIL WAR	01 26,296
1 R01 LM 03707-01	PREPARATION OF BERGEY'S MANUAL	01 15,132 02 16,879 03 17,330

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/
(Arranged numerically by program)

COUNCIL DATE: OCTOBER 1980

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

AMOUNTS
RECOMMENDED

APPLICATION NUMBER SHORT TITLE

1 R13 LM 03602-01 DUAL: RR 01 28,000

WORKSHOP ON NEEDS FOR NEW ANIMAL MODELS

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/
(Arranged numerically by program)

COUNCIL DATE: OCTOBER 1980

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

AMOUNTS RECOMMENDED
01A1 24,869
02 27,150
03 30,050

SHORT TITLE

APPLICATION NUMBER

1 R23 LM 03368-01A1

A DIGITALIS THERAPY ADVISOR

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/
(Arranged numerically by program)

COUNCIL DATE: OCTOBER 1980

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
1 G07 LM 03451-01A1	CONSORTIUM IMPROVEMENT GRANT	01A1 27,600
1 G07 LM 03597-01	CONSORTIUM IMPROVEMENT GRANT	01 29,967
1 G07 LM 03672-01	CONSORTIUM IMPROVEMENT GRANT	01 4,000
	SINGLE-INSTITUTION GRANT	
1 G07 LM 03678-01	CONSORTIUM IMPROVEMENT GRANT	01 27,902
	SINGLE-INSTITUTION GRANT	
1 G07 LM 03681-01	CONSORTIUM IMPROVEMENT GRANT	01 4,000
	SINGLE-INSTITUTION GRANT	
1 G07 LM 03696-01	CONSORTIUM IMPROVEMENT GRANT	01 18,487

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/
 (Arranged numerically by program)

COUNCIL DATE: OCTOBER 1980

INSTITUTE/DIVISION:	APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
NATIONAL LIBRARY OF MEDICINE	1 G08 LM 03668-01		01 100,170
			02 110,000
			03 119,914
MONTANA HEALTH SCIENCES LIBRARY NETWORK	1 G08 LM 03675-01		01 36,010
			02 32,430
			03 30,260
ON-LINE REGIONAL UNION CATALOG OF MONOGRAPHS AND AUDIO-V	1 G08 LM 03694-01		01 36,407
			02 42,332
			01 41,411
FRONTIER NURSING SERVICE CATALOGING - ADM RECORDS	1 G08 LM 03701-01		01 41,411
HEALTH AUDIOVISUALS ON-LINE CATALOG			

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/
(Arranged numerically by program)

COUNCIL DATE: OCTOBER 1980

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE	APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
	1 K10 LM 00056-01	SPECIAL SCIENTIFIC PROJECT: TALKING WITH PATIENTS BOOK	01 37,160
	1 K10 LM 00058-01	DISCLOSURE AND CONSENT IN MEDICAL AND LEGAL PRACTICE	01 56,236
	1 K10 LM 00059-01	COMPREHENSIVE REVIEW OF INJURY CONTROL	01 73,739

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

BOARD OF REGENTS

Extramural Programs Subcommittee Meeting

October 8, 1980

A T T E N D E E S

Subcommittee Members Present:

Dr. Saul Jarcho (Consultant)
Dr. John L. Townsend
Mr. James F. Williams II

NLM Staff Present

Dr. Martin M. Cummings, Director, NLM
Dr. Ernest M. Allen, Associate Director for Extramural Programs
Mrs. Helen S. Bennison, Grants Management Specialist, EP
Mr. Arthur J. Broering, Deputy Associate Director for Extramural Programs
Dr. Jeanne L. Brand, International Programs Division, EP
Mr. Peter A. Clepper, Program Officer, EP
Mrs. Karin K. Colton, Committee Management Assistant
Dr. Roger W. Dahlen, Chief, Division of Biomedical Information Support, EP
Mrs. Doris Doran, Program Officer, EP
Miss Annette B. Green, Grants Data Clerk, EP
Mrs. Rose Marie Holston, Program Technical Assistant, EP
Mrs. Frances E. Johnson, Program Officer, EP
Mrs. M. Kathleen Nichols, Grants Management Specialist, EP
Mrs. Marguerite L. Pusey, Administrative Officer, EP
Mr. Randall Worthington, Program Officer, EP
Dr. Galina V. Zarechnak, Program Officer, EP

Subcommittee Members Unable to Attend:

Mrs. Bernice M. Hetzner (Consultant)
Professor Martha E. Williams

B O A R D O F R E G E N T S

Lister Hill Center and National Medical Audiovisual Center

Subcommittee Meeting

October 8, 1980

A T T E N D E E S

Subcommittee Members Present:

Dr. Faye G. Abdellah
Dr. Ismael Almodóvar
Vice Admiral J. William Cox
Dr. Nicholas E. Davies (Chairman of the Board)
Dr. Charles E. Molnar

NLM Staff Present:

Dr. Harold M. Schoolman, Deputy Director for Research and Education, OD
Dr. Lionel M. Bernstein, Director, LHNCBC
Dr. Donald R. Buckner, Chief, Materials Development Branch, NMAC
Dr. William G. Cooper, Associate Director for Planning, OD
Mr. Martin Epstein, Special Assistant to the Director, LHNCBC
Mr. Charles M. Goldstein, Chief, Computer Technology Branch, LHNCBC
Mr. B. Earl Henderson, Chief, Communications Engineering Branch, LHNCBC
Ms. Linda W. Kudrick, Chief, Materials Utilization Branch, NMAC
Dr. A. Donald Merritt, Chief, Health Professions Applications Branch, LHNCBC
Dr. Warren F. Seibert, Chief, Educational Research and Evaluation Branch, NMAC
Dr. Michael Weisberg, Assistant Chief, Educational Training and Consultation Branch, NMAC
Dr. James W. Woods, Director, NMAC
Dr. Harold A. Wooster, Special Assistant for Program Development, LHNCBC

Subcommittee Member Unable to Attend:

Dr. Edward J. Huth

Members of the Public Present:

None