

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

A G E N D A

72nd Meeting of the

BOARD OF REGENTS

9:00 a.m., January 27-28, 1983

NIMAC CLASSROOM  
Lister Hill Center Building  
B-1 Level

MEETING OPEN: All day on January 27 and from 10:15 a.m. to adjournment on January 28.  
MEETING CLOSED: From 9:00 to 10:15 a.m. on January 28 for the review of grant applications.

- I. CALL TO ORDER AND INTRODUCTORY REMARKS Dr. William D. Mayer
- II. REMARKS BY THE ASSISTANT SECRETARY FOR HEALTH Dr. Edward N. Brandt, Jr.
- III. REMARKS BY THE DEPUTY DIRECTOR, NIH Dr. Thomas E. Malone
- IV. CONSIDERATION OF OCTOBER MINUTES TAB I Dr. William D. Mayer  
(Agenda Book)
- V. DATES OF FUTURE MEETINGS
- Spring Meeting: May 26-27, 1983 (Th-F)--CONFIRMED
- Fall Meeting: October 13-14, 1983 (Th-F)--CONFIRMED
- Winter Meeting: Jan. 26-27 OR Feb. 2-3, 1984 (Th-F)--PROPOSED
- PLEASE NOTE: American Association for the Advancement of Science  
Annual Meeting - January 3-8, 1984 -- NYC  
American Library Association - Midwinter Meeting  
January 7-13, 1984 -- DC  
Society of Thoracic Surgeons - Annual Meeting  
January 23-25, 1984 -- San Antonio

COFFEE BREAK

- VI. REPORT OF THE DIRECTOR, NLM TAB II Dr. Martin M. Cummings  
Mr. Kent A. Smith  
Dr. Harold M. Schoolman

LUNCHEON CATERED IN CLUSTER CONFERENCE ROOM 12:15-1:00

VII. AMA-GTE NETWORK TAB IV Mr. Daniel K. Harris  
 Dr. Charles C. Edwards,  
 Discussant  
 Discussion Board Members

VIII. SPECIALIZED INFORMATION SERVICES TAB V Dr. Henry M. Kissman  
 Col. James E. Hastings,  
 Discussant  
 Discussion Board Members

COFFEE BREAK

IX. NLM COMPUTER OPERATIONS TAB VI Mr. John E. Anderson  
 Mr. Russell R. Fenwick,  
 Discussant  
 Discussion Board Members

X. ONLINE CATALOG STUDY TAB III Dr. Elliot R. Siegel  
 Dr. Gwendolyn S. Cruzat,  
 Discussant  
 Discussion Board Members

XI. APPOINTMENT OF THE NOMINATING COMMITTEE Dr. William D. Mayer

XII. NLM DIRECTOR'S AWARD Dr. Martin M. Cummings

R E C E S S \* \* \* \* \*

DINNER . . . . . Bethesda Naval Officers' Club  
 Cocktails (Cash Bar) . . . . . 6:30 p.m. "Bridge  
 Dinner . . . . . 7:30 p.m. Room"

SPEAKER: Mr. William D. Carey, Executive Officer  
 American Association for the Advancement of Science

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R E C O N V E N E: January 28 -- 9:00 a.m. -- NMAC CLASSROOM

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 MEETING CLOSED FOR THE REVIEW OF GRANT APPLICATIONS, 9:00 to 10:15 A.M., Jan. 28, 1983  
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III. SPECIAL APPLICATIONS

(Gray Workbook)

A. Training	<u>TAB I</u>	Dr. Roger W. Dahlen
B. Research	<u>TAB II</u>	" " " "
C. Resource	<u>TAB III</u>	" " " "

IV. SUMMARY STATEMENTS

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

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 MEETING OPEN FROM 10:15 A.M. to ADJOURNMENT, January 28, 1983  
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COFFEE BREAK

(Agenda Book)

V. REPORT OF THE ACTING ASSOCIATE DIRECTOR FOR EXTRAMURAL PROGRAMS	<u>TAB VII</u>	Dr. William G. Cooper EP Subcommittee, Discussants
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A. EP Budget Projections and Funding Plans	<u>Tab A</u>	
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B. Review of Board Operating Procedures "Guidelines for Adjustment by Staff in Time and Amount of Grant Award"	<u>Tab B</u>	
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Discussion		Board Members
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VI. REVIEW OF COMPUTERS-IN-MEDICINE PROGRAM	<u>TAB VIII</u>	Dr. William G. Cooper Dr. Charles E. Molnar, Discussant
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Discussion		Board Members
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LUNCHEON AT CAFETERIA OF UNIFORMED SERVICES UNIVERSITY FOR THE HEALTH SCIENCES (Dutch Treat) (Bus transportation to University at 11:50)	12:00-1:00	
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VII. TOUR OF FACILITIES AND PROGRAM	1:00-3:00	Col. Leonard Johnson, Jr. Col. Richard Hodder Col. Robert Allman
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VIII. ADJOURNMENT	3:00	Dr. William D. Mayer
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D E P A R T M E N T   O F   H E A L T H   A N D   H U M A N   S E R V I C E S

NATIONAL INSTITUTES OF HEALTH  
NATIONAL LIBRARY OF MEDICINE

BOARD OF REGENTS  
MINUTES OF THE 72<sup>ND</sup> MEETING

JANUARY 27-28, 1983

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/  
January 27-28, 1983

The Board of Regents of the National Library of Medicine was convened for its seventy-second meeting at 9:00 a.m. on Thursday, January 27, 1983, in the NMAC Classroom of the National Library of Medicine, Bethesda, Maryland. Dr. William D. Mayer, Chairman of the Board of Regents, and President of the Eastern Virginia Medical Authority, presided. In accordance with P.L. 92-463 and the Determination of the Director, NIH, and as announced in the Federal Register on December 29, 1982, the meeting was open to the public from 9:00 a.m. to 4:30 p.m. on January 27 and from 9:40 to 11:40 a.m. on January 28. The meeting was closed from 9:00 to 9:40 a.m. on January 28 for the review, discussion, and evaluation of grant applications. A Board roster is under Attachment "A."

Board members present were:

Dr. L. Thompson Bowles  
Dr. Eloise E. Clark (Ex officio) (January 27)  
Dr. Gwendolyn S. Cruzat  
Dr. Lois E. DeBakey  
Mrs. Shirley Echelman (January 27)  
Dr. Edward J. Huth  
Dr. C. Everett Koop (Ex officio)  
Dr. William D. Mayer  
Dr. David O. Moline  
Dr. Charles E. Molnar  
Dr. John L. Townsend

Alternates to ex officio members present were:

Dr. Faye G. Abdellah, alternate for Dr. C. Everett Koop (January 27).  
Brig. Gen. Vernon Chong, representing Lt. Gen. Max B. Bralliar.  
Col. James E. Hastings, representing Lt. Gen. Bernhard Mittemeyer.  
Mr. William J. Welsh, representing Dr. Daniel J. Boorstin.

Unable to attend:

Vice Adm. J. William Cox  
Dr. Charles C. Edwards  
Mr. James M. Hahn

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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 Libraries 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, OD  
Mr. John Anderson, Director, Information Systems, OD  
Mr. Harry D. Bennett, Director for Computer and Communications Systems  
Dr. Jeanne Brand, Chief, International Programs Branch, EP  
Mr. Arthur J. Broering, Deputy Associate Director for Extramural Programs  
Mr. Kenneth Carney, Executive Officer, OD  
Mrs. Lois Ann Colaianni, Acting Associate Director for Library Operations, LO  
Dr. William G. Cooper, Associate Director for Planning and Acting Associate  
Director for Extramural Programs  
Dr. Mary E. Corning, Assistant Director, International Programs, OD  
Dr. George Cosmides, Deputy Associate Director, SIS  
Dr. Roger W. Dahlen, Chief, Biomedical Information Support Branch, EP  
Dr. Tamas Doszkocs, Chief, Biomedical Files Implementation Branch, SIS  
Mr. B. Earl Henderson, Acting Director, LHNCBC  
Dr. Warren Hoag, Chief, Planning and Evaluation, SIS  
Ms. Betsy Humphreys, Chief, Technical Services Division, LO  
Dr. Henry M. Kissman, Associate Director for Specialized Information Services  
Dr. Joseph Leiter, Special Assistant to the Director, OD  
Ms. Nina W. Matheson, Special Expert Consultant, OD  
Mr. Robert B. Mehnert, Chief, Office of Inquiries and Publications Management  
Mr. Stan Phillips, Deputy Executive Officer, OD  
Dr. Melvin L. Spann, Chief, Biomedical Information Services Branch, SIS  
Dr. Elliot R. Siegel, Special Assistant for Operations Research, OD

Others present included:

Dr. Thomas E. Malone, Deputy Director, NIH  
Mr. Russell Fenwick, Senior Vice President, Electronic Banking, Bank of America,  
Los Angeles -- Consultant, NLM  
Mr. Joseph Howard, Acting Director, National Agricultural Library  
Dr. Nicholas E. Davies, Attending Physician, Piedmont Hospital, Atlanta --  
Consultant, NLM  
Dr. Leonard Fenninger, Vice President, Medical Education & Scientific Policy, AMA  
Dr. Richard B. Friedman, Permanent Head, Section in General Medicine, University  
of Wisconsin Medical School  
Mr. Arthur Hafner, Director, AMA Library  
Mr. Daniel Harris, Director, Medical Information Network, AMA  
Mr. James F. Rappel, Vice President, Information Systems, AMA  
Mrs. Ileen Stewart, Executive Secretary, Special Studies Section, DRG, NIH

Members of the public present:

Mr. Thaddeus Plante, Legal Assistant, Kaye, Scholar, Fierman, Hays & Handler  
Mr. Jeff Christy, Reporter, "The Blue Sheet"  
Ms. Marian Williams, Marketing Analyst, Anrow Sciences

## I. OPENING REMARKS

Dr. William D. Mayer, Chairman, welcomed the Regents, consultants, and guests to the 72nd meeting of the Board of Regents.

Dr. Mayer reported on the recent meeting of the NIH Director's Advisory Committee at which he represented the Board of Regents. There were three major topics of discussion: the effort to stabilize the number of NIH grants, research training, and clinical trials. After briefly describing these discussions, Dr. Mayer gave a perspective of the meeting from an NLM point of view. To stabilize NIH research grants at 5,000 (and trainees at 10,000) poses potential problems for NLM, service-oriented NIH components, the Clinical Center, and NIH intramural research programs. The 5,000-grant level represents an "uncontrollable" expenditure, and to maintain that level may lead to severe budget constraints on other programs.

Dr. Mayer questioned the wisdom of jeopardizing such activities as NLM's Computers-in-Medicine Research and Training Program because of inadequate support. This important program, which will be discussed in detail by the Regents later in the meeting, is facing a cutback. He emphasized that to reduce this support at a time when most observers agree that we are moving from an industrial to an information society can only hurt the progress of medicine. "The entire concept of the Computers-in-Medicine Program is going down the drain, at least as a generic issue, at the very time when we have developed a core of personnel who could potentially lead us in the health enterprise to the information age that we are facing."

Dr. Mayer noted that NLM, with its budget of less than \$50 million (only 1-1/4% of NIH's entire budget), plays a key role in ensuring that the results of NIH-sponsored research are available to biomedical scientists, educators, and practitioners around the world. "NLM is the ultimate infrastructure--the conduit, if you will--for the world's biomedical knowledge base. If we neglect the processing of the products of biomedical research, other nations will be the leaders in the future. Somehow we have to get that message across to the NIH, the Secretary, the President, and the Congress that it is, in fact, essential to the future of the biomedical research enterprise and the U.S. leadership role to invest a small but critical amount of our resources into managing and disseminating the information we generate."

## II. REPORT OF THE DEPUTY DIRECTOR, NIH

Dr. Thomas E. Malone reported on the recent ceremony to rename Building 1 the Shannon Building, which was attended by the last six directors of NIH. Dr. Malone noted some of the advances in American medicine over the last 30 years under their leadership. He remarked that these dramatic advances could not have taken place without NLM's important contributions to building the knowledge base and providing access to the information. "I would certainly underscore...the absolute central role of the information retrieval and dissemination functions of NLM," he said. He commented that Dr. Mayer

was a very strong advocate for NLM's Computers-in-Medicine Program at the NIH Director's Advisory Committee meeting. The problems facing this program also were presented to Dr. Wyngaarden by Dr. Cummings, both at a recent planning session and in a memorandum. Dr. Malone noted that a trans-NIH group is being formed to see how the other NIH components, who have a great stake in the Computers-in-Medicine Program, can contribute to maintaining this important activity. Although there may be many individuals trained in computer science, there are very few institutions that offer specific training for medical applications. The responsibilities for supporting this rests at NIH, and it is one that we cannot forego. Dr. Malone ended his presentation by saying he was sorry that Secretary Schweiker was leaving his post. Mr. Schweiker knew the medical research environment, perhaps better than any of his predecessors, and he was largely responsible for the success in the budget battles of 1982 and 1983. Fortunately we will be supported by a strong Public Health Service led by Dr. Brandt and Dr. Koop. The incoming Secretary, Margaret Heckler, has a strong interest in science and technology, particularly manpower development. It is hoped that she will soon be able to visit NIH and NLM.

### III. CONSIDERATION OF MINUTES OF PREVIOUS MEETING

The Regents approved without change the minutes of the October 7-8, 1982, meeting.

### IV. DATES FOR FUTURE MEETINGS

The Board will meet next on May 26-27. The dates of October 13-14 were confirmed for the fall meeting. January 26-27, 1984, were the tentative dates selected for next winter's meeting.

### V. REPORT OF THE DIRECTOR, NLM

Dr. Cummings noted with regret the death of Dr. Martin Epstein, a branch chief in the Lister Hill Center. He also announced the planned retirement of Dr. Joseph Leiter, Associate Director for Library Operations, after more than 45 years of government service. Both, he said, will be sorely missed and difficult to replace. Reflecting on his own 40 years as a government physician-administrator, Dr. Cummings recounted some of the changes that have occurred in medicine since that time. "In a wider sphere, we have evolved from an industrial into an information society, with more than half of the labor force and nearly half of the GNP now related to producing, processing, and disseminating information goods and services. NLM has kept pace with this transformation by adopting technology for improving processing and dissemination of literature-based health information. The development of MEDLARS by Dr. Frank B. Rogers and the later implementation of a large-scale online computer retrieval system will be viewed by those who come after us as an achievement comparable to the Index Medicus and Index Catalogue developed by Dr. John Shaw Billings in the last century. As NLM grew and prospered in recent decades, so also did the nation's medical libraries, primarily as a result of support from NLM's Extramural Programs. NLM has provided approximately \$135 million for support of research in information handling, training of librarians and health professionals, resource and improvement grants, publications support and studies in the history of life sciences. In addition, the Regional Medical Library Network, the



first formal library network in any field or discipline, was established in 1966. Since that time it is estimated that more than 15 million loans and 10 million computer searches have been provided through the RML Network.

The success of these programs has attracted a great deal of attention to the Library. Unfortunately, some of the interest is reflected in strong adversarial tensions and confrontations. There was a challenge in the seventies by publishers to prohibit NLM from providing single photocopies of articles in lieu of lending original materials. This challenge led to litigation in which the National Library of Medicine's position on behalf of libraries everywhere was finally sustained by the U.S. Supreme Court. Similarly, our right to offer computerized bibliographic and reference services is now being challenged by a small segment of the commercial information industry. This could lead to one of several consequences: another extended and costly litigation, or the modification of the NLM statute to treat NLM's services and products as an economic commodity rather than a contribution to society's health and welfare. This is the major issue facing the Board of Regents at this time."

On the budget front, Dr. Cummings noted that he is enjoined from discussing in any detail the FY 1984 budget proposal. He did compare the FY 1982 and FY 1983 (continuing resolution) budgets. He showed on a graph how the funds are being distributed among NLM's five major programs. The Computers-in-Medicine Program, discussed by Dr. Mayer and Dr. Malone earlier, is included under the appropriation for the Medical Library Assistance Act. This Act is up for renewal and, unless a higher level of funds is authorized by the Congress, the outlook for the Computers-in-Medicine Program remains dim. One bright note is that the Department has recommended language for the Act that ultimately would open the door for higher appropriations. Compared with the overall NIH budget, Dr. Cummings said, the NLM budget has not kept pace proportionately. Using 1973 as a base year, NLM's 1983 budget would be \$55 million if it had grown at the same rate as NIH's budget (the 1983 NLM budget is \$46 million).

Dr. Cummings asked Mr. Smith and Dr. Schoolman to bring to the attention of the Regents several policy issues on which NLM seeks advice. Mr. Smith, NLM Deputy Director, reported on the completed reconfiguration of the Regional Medical Library Network from 11 regions to 7. Mrs. Colaianni and her staff deserve credit for managing this difficult transition. The new arrangement should result in a more cost-effective network and at the same time maintain a high level of services. Some network services will be put on a cost-reimbursable basis. The new contracts continue to emphasize the importance of document delivery services, and support will be directed to maintaining regional collections, developing union lists and locator tools, and using new technology to improve interlibrary loans. The network each year processes some two million requests for interlibrary loans; about 80 percent are filled at the local and resource library levels. Of those referred to the RMLs, 85 percent are filled within four days. The regions currently administer this document delivery program on a cost-recovery basis, and we are now considering instituting charges for requests filled at NLM in its backup role. Using charts, Mr. Smith described the geographic composition of the seven regions and the institutions selected as the RML for each. The RML directors will be meeting soon in Bethesda to discuss the new contract requirements and the services to be provided.

Mr. Smith next discussed the MEDLARS cost-recovery issue. He reviewed the present policies and then reported to the Regents on the findings of two studies, conducted by the General Accounting Office (GAO) and the Office of Technology Assessment (OTA). The GAO concluded that NLM's pricing policy for user charges is consistent with existing statutes and regulations and that the vast majority of MEDLARS users should be excluded from full-cost recovery requirements because of the public benefit that derives from their use. Non-health related users of the system may be charged for full-cost recovery. NLM proposes to do a survey of these commercial users to determine which are non-health related. The Information Industry Association has raised certain questions about the findings of the GAO study. The Office of Management and Budget, responding to these questions, has determined that (1) an agency should have flexibility to permit dissemination at less than full cost when this is in the public interest, and (2) that the NLM Act (which permits user charges) takes precedence over A-25 (the OMB circular on user charges). The other report, by the OTA, was released in September. Among the findings in this report were (1) that NLM's pricing policies were consistent with relevant statutes, regulations, the advice of Congress, and the advice of the Regents; (2) no private business has expressed the desire to undertake a system like MEDLARS/MEDLINE; (3) if NLM were to abandon its system, it would be difficult for the Government to meet its responsibilities for biomedical research; (4) NLM's pricing policies have not inhibited the growth of the private sector, but in fact may have fostered it; and (5) there are few empirical data to support arguments against NLM's present practices and, thus, any changes in the range of NLM's products and services or their pricing structure require caution. Both of these studies, Mr. Smith said, give NLM a "bill of good health." A third study, currently underway by the Department, is scheduled to be completed next fall.

Dr. Harold M. Schoolman, NLM Deputy Director for Research and Education, reported to the Regents on the recent report to Congress by the Register of Copyrights. This report, mandated by the 1976 revision of the copyright law, reviews the last five years' experience with photocopying (Section 108). This Section is intended to balance the needs of the users with the rights of copyright holders. The Register of Copyrights held meetings in a number of cities to discuss this issue and also contracted with King Associates to do a survey of U.S. photocopying practices. Comments on this survey were solicited. Dr. Schoolman highlighted several conclusions in the report: (1) the law is working pretty well and the desired balance has been achieved in most instances; (2) there remains, however, a significant fraction of instances in which there is an apparent imbalance (i.e., photocopying by libraries in excess of that permitted by the law); and (3) to remedy these inequities the report recommends that, preferable to legislative action, the interested parties come together to reach an understanding. In fact, Dr. Schoolman said, NLM has initiated a series of meetings with representatives of publishers, librarians, professional societies, and information vendors. The part of the report that is most troublesome for NLM, he said, is that dealing with Section 108(g)2 ("systematic photocopying"). The interpretation contained in that part of the report suggests that anything designed to facilitate or make efficient an interlibrary loan is by definition systematic, and therefore an infringement. Another connotation it contains is that NLM's photocopying practice is an infringement--this notwithstanding the Williams and Wilkens suit that was resolved in NLM's favor by the Supreme Court. Much more discussion of this issue is needed.

Following these reports, Mr. William Welsh commented that it is assumed that Congress will hold hearings on the copyright matter, although none is scheduled yet. He also noted that the new optical disc technology, with which the Library of Congress and NLM are experimenting for purposes of storage and preservation, has important implications for copyright. He agrees with NLM that the proper approach is to sit down with the concerned parties and reach an accommodation on these matters. At the Library of Congress, he said, the size of the collection will double within the next 50 years at the current rate of acquisitions (6,000 items a day). Much of this printed material is on paper that "self-destructs," and preservation, thus, is becoming an overriding issue, not only at the Library of Congress but at all major research libraries. Ms. Shirley Echelman commented that the Association of American Publishers has proposed that libraries be required to join a licensing/copying scheme. In response to a question by Dr. Molnar about the actual effect of libraries paying a fee for photocopying privileges, Ms. Echelman replied that the whole concept of "free and equal access," on which public libraries are founded, would be eroded. Also, most medical research in the U.S. is funded at public expense, although the results are frequently published by commercial companies. Charging a fee to copy this material would be unfair to the user, she said. There was a general discussion of how new information retrieval and communications technology will affect scientific publishing. "Electronic publishing," perhaps even in lieu of traditional paper publishing, will result in many economic problems for scientific societies and other publishers of professional literature. New forms of bibliographic tags will have to be developed by librarians to exercise control of such electronic literature.

Dr. Lois DeBakey continued the copyright discussion by commenting that the generators of the intellectual content of journals and the intended recipients of this information are being ignored in our deliberations about copyright. Scientific authors surrender their intellectual property to publishers without remuneration--sometimes even paying review or page charges. This is in contrast to nonscholarly authors who are paid for their work. Are publishers planning to share with scientific authors the revenues they might take in as a result of copying fees? Dr. Schoolman commented that there are no such plans by the publishers. However, professional societies that publish journals would benefit from such fees. The societies thus find themselves in a kind of conflict-of-interest position concerning authors' and users' rights. It is ironic, Dr. DeBakey said, that those who create and use the published scientific work are not party to any of the discussions about copyright and fees.

Dr. Cummings ended his report by noting that the reorganization of the Lister Hill Center (LHC) has been approved by the Department. The programs of the National Medical Audiovisual Center will be combined with those of the LHC into one organization known as the Lister Hill National Center for Biomedical Communications. An announcement of the reorganization will be published soon in the Federal Register.

## VI. POLICY STATEMENTS OF THE BOARD OF REGENTS

Dr. Mayer presented to the Regents a recodification of the current policies of the Board. These were discussed as drafts at the last meeting and NLM

staff have incorporated the results of those discussions into the collected policies. The Regents voted unanimously to adopt the revised policy statements.

## VII. AMA-GTE NETWORK

Four representatives of the American Medical Association presented a report on the new information network (AMANET), sponsored by the AMA in cooperation with General Telephone and Electronics (GTE). The representatives were Dr. Leonard Fenninger, Vice President for Medical Education and Science Policy, Mr. James F. Rappel, Vice President for Information Systems, Mr. Arthur Hafner, Director, AMA Library, and Mr. Daniel Harris, Director, Medical Information Network, AMA. Using slides, Mr. Harris described the medical information system as a "value-added network" that operates under the GTE TELENET communications system. The system allows physicians with access to a terminal to connect into the network from any location in the U.S. The information available over the AMANET is in three broad categories: education, science, and administration. The AMA is responsible for the information in the network and marketing research; GTE is responsible for the communications aspects of the network, technical support, and promotion and direct sales. AMANET is now being made available principally to physicians and hospitals. Among the information now available are: the drug information base (derived from the AMA's drug evaluation book), the disease base (predicated on the AMA's "Current Medical Information and Technology"), a medical nomenclature base, and the beginning of a literature information service. The three communications capabilities at present are direct messaging among individual terminals, "bulletin boards" for messages going to groups, and a variety of "preprogrammed messaging" for ordering literature from a third source, for example. Mr. Harris gave a number of specific examples of the kinds of applications and messages now being made available over the network. Among the future applications being developed are those for poison control, continuing medical education (particularly physician self-assessment), laboratory information base, clinical literature, and diagnostic assistance. The most expensive information base presently on AMANET, Mr. Harris said, is the drug information base at \$27 per hour. The AMA is committed to keeping prices at a reasonable level so as not to preclude use of the system for economic reasons.

In response to questions from the Regents, Mr. Harris said that AMANET became available last October. More than 100 inquiries per day are being received by GTE from potential users. The only costs are a registration fee of \$100, the per-hour connect charge, and the cost of the terminal itself. Dr. Cummings said that AMANET is an exciting development and that he is particularly gratified to hear that the rates for AMA's information bases are so close to NLM's own online charges. In response to another question, Mr. Harris said there are long-range plans to market the system internationally. Considerable interest has been expressed by health professionals in other countries.

## VIII. PROPOSED REGULATIONS ON HOSPITAL LIBRARIES

Dr. Nicholas E. Davies, former Regents chairman and now a Board consultant to NLM, described the regulation being promulgated by the Health Care Financing Administration that would eliminate the requirement that hospitals have a medical

library to be eligible for Medicare reimbursement. On January 4, 1983, these regulations were published in the Federal Register and comments solicited. The regulation would not affect the 5200 hospitals that are certified by the Joint Committee on the Accreditation of Hospitals (JCAH). About 1500 other hospitals would be affected. Dr. Davies has written an editorial on this subject in the Annals of Internal Medicine (which he distributed to the Regents). Dr. Fenninger noted that the AMA is taking the position that hospitals that do not have a formal library must have a written plan for timely access to current medical information (for example, through national networks), and that this requirement be written into the regulation. Dr. Huth commented that it is ironic that it is the smallest hospitals, with least access for their staff to expert consultation, that most need libraries. As information networks such as AMANET develop, however, they may to some extent obviate the need for collections of printed literature. Ms. Nina Matheson, of the NLM Planning Office, said that the Legislation Committee of the Medical Library Association will prepare a formal response to the regulation that takes the position that access to information must be assured, even if a traditional library cannot be maintained in a small hospital.

#### IX. SPECIALIZED INFORMATION SERVICES

Dr. Henry Kissman, NLM Associate Director for Specialized Information Services (SIS), reported on three SIS programs that are undergoing significant change. These are CHEMLINE (an online chemical dictionary file), the Toxicology Data Bank, and the Hazardous Waste Information Service.

CHEMLINE, which has been available on the NLM online network since 1973, is provided in collaboration with Chemical Abstracts Service (CAS). It contains nomenclature and structure information taken from the CAS Registry System which includes such information about all the compounds found in the literature that CAS has processed since 1965. In recent years, use fees charged NLM by CAS have escalated rapidly, resulting in high costs to NLM's online users (\$101 per hour in 1982). Usage of CHEMLINE has dropped during recent years, at least partially as a result of the increasingly higher charges. To remedy this situation, NLM negotiated with CAS to restructure the CHEMLINE file in a manner that would allow a price reduction to NLM's users. The restructured file, available at \$54 per hour since January 1, contains fewer but more "select" synonyms for the 540,000 chemical compounds referenced in the file. The annual cost to NLM is also substantially less--reduced to \$24,000 from \$60,000. This was done with the concurrence of NLM's advisory committee, the Toxicology Information Program Committee of the National Academy of Science. Other sources of synonyms are being investigated.

The Toxicology Data Bank (TDB), another of the online services available on NLM's network, was evaluated by an expert panel of users in 1982. TDB contains data records on some 3100 chemicals selected because of their actual or potential hazard to human health. There are at least 60 data elements for each compound, the information being extracted from handbooks and textbooks and reviewed by experts before being put online. The expert panel concluded that: (1) TDB provides an adequate amount of valid data per compound; (2) the retrieval mechanism is good; (3) it is highly cost-effective for the user; (4) TDB is the only system of its kind; (5) the user group needs to be better defined and communications with users improved;

(6) more compounds should be covered in TDB; (7) more of the primary literature, which is more up to date than the monographic literature, should be used as sources; (8) the peer review committee that reviews the data and is made up of toxicologists from academia should be augmented with scientists from industry; (9) "user-friendliness" of the system should be increased; (10) more potential users should be identified; and (11) the cost to users should not be increased. Some fundamental changes have already been initiated in TDB, Dr. Kissman said, both because of these conclusions and our own observations as to where improvements are needed. Addition of new records is being speeded up; data from the primary literature are being added; a new minicomputer-based online maintenance system is being developed; a remote data entry system is almost complete; and new user support and training materials have been developed.

Finally, Dr. Kissman reported on SIS's increasing involvement with the "Superfund Act," the law that calls for the cleanup of chemical dumps and other actions associated with hazardous wastes and emergencies resulting from chemical spills. NLM is receiving funds under the Act to enhance TDB and for new information support functions for hazardous waste substances. NLM received \$233,000 in FY 1982 for Superfund-related work; in FY 1983 NLM may receive as much as \$1.3 million.

Responding to Dr. Kissman's presentation, Colonel Hastings commented that because CAS has a virtual monopoly in the area covered by CHEMLINE, there is no guarantee that NLM will not be faced in the near future with further rises in fees to CAS. It might be useful for NLM to consult with CHEMLINE users, just as it plans to do with users of TDB. The review, in an online mode, of more up-to-date data for TDB is a welcome improvement for that database. Dr. Cummings commented that the potential entry of CAS into the marketplace as a purveyor of its own online data retrieval service would be a development that should not be of concern to NLM. This would be a natural and reasonable development on their part. Mr. Bruno Vasta of the SIS staff noted that as CHEMLINE is augmented with information from other sources, the percentage of CAS data in the file will decline.

#### X. NLM COMPUTER OPERATIONS

Mr. John Anderson, Director of Information Systems, described the recently upgraded NLM computer configuration as the second largest IBM 3033 MP system in the world. He described the growth of the system over the last decade, detailing the successive improvements in hardware and software. The latest increase in capacity has allowed NLM to dispense with the backup service provided by the State University of New York at Albany, and also allowed NLM to put all MEDLARS backfiles online for search and retrieval. Using charts, Mr. Anderson described the costs, both in dollars and staff, of maintaining and operating the MEDLARS system. NLM's recent emphasis on purchasing rather than renting much of the MEDLARS hardware has proved a wise policy and has kept costs down. Hardware and software improvements over the years have resulted in the ability to handle great increases in workloads (as measured in the number of connect hours), but more than this, improved efficiency has greatly increased the amount of work accomplished per connect hour.

Mr. Anderson reported on the status of the planned contract to develop the software for MEDLARS III. The competition will be closed on February 4, and about six proposals are expected from the private sector. A comprehensive evaluation plan has been drawn up to consider these proposals, and we hope to

award a contract this summer. The first "deliverables" under the contract will be received some 18 months after award. Some software improvements have already been made in anticipation of the new system: a new CRT screen, an upgraded Data Base Management System, and a stronger transaction monitor. The last item Mr. Anderson reported was the comparison of the cost of operating the MEDLARS computer system with NLM staff, and the cost of operating the system with contractor staff. This formal comparison was done under the auspices of OMB Circular A-76. The proposals from potential contractors have been evaluated, but a final report has not yet been issued.

Mr. Russell L. Fenwick, NLM consultant, commented that overall he is impressed by the quality of NLM's operation--the management control, the emphasis on operating efficiency and cost control, and the positive attitude and pride of NLM staff. MEDLARS III, when implemented, will bring the Library to state-of-the-art status. The MEDLARS III and A-76 RFPs were both well organized and well planned. The fact that the latter has generated so little response is a compliment to the quality of the present, NLM-operated system.

#### XI. ONLINE CATALOG STUDY

Dr. Elliot R. Siegel, Head of NLM's Operations Research Group, described the evaluation of two prototype online catalog systems that were candidates to provide access to NLM's public catalog. The two systems, CITE (Current Information Transfer in English) and the public catalog access module of the ILS (Integrated Library System), were developed by NLM staff--Dr. Tamas Doszkocs of SIS (CITE) and Mr. Charles Goldstein of the Lister Hill Center (ILS). A Study Group was established under the leadership of Dr. Siegel to develop and carry out the study. Dr. Siegel described how the evaluation was set up to permit independent and comparative assessment of the systems on two dimensions: technical performance and user acceptance. The study was unique in that it evaluated two online catalog systems within the same operational environment, utilizing the same staff, computer terminals, databases, and patron population.

The CITE system incorporated a user-friendly front end to the CATLINE database operating on NLM's IBM 3033 mainframe computers; ILS, on the other hand, also used the CATLINE database, but operated on a dedicated Data General S320 mini-computer. After detailing the methodology of how the assessment was constructed, Dr. Siegel summarized the major findings of the study. Users of both systems clearly preferred online catalog searching to the existing card catalog and microfiche catalog (COMCAT). Overall satisfaction was higher for users of CITE; the technical performance evaluation also gave an edge to CITE over ILS. As a result of the evaluation, CITE has been adopted, as is, for use by NLM patrons and nontechnical staff. Dr. Siegel made available to the Regents a written report that detailed the questions asked of users, the sample searches used, and the data collected.

In response to a question from Dr. Molnar, Dr. Siegel said that economic factors also favor CITE--it operates on the existing mainframe computer and does not require a dedicated minicomputer. Also, no conversion of existing ELHILL records is needed for CITE (such a conversion is required by ILS). Dr. Cruzat commended Dr. Siegel for the well-designed and executed study. She noted that the study is especially significant because it is the first time two online catalog systems have been compared in one environment.

Although it was demonstrated that both systems could be used successfully by patrons, without help, she agreed that CITE was more user-friendly and was the proper choice. The study also showed the preference of patrons for subject searching (as opposed to author or title searching) and NLM may wish to improve this capability even more by increasing the number of access points through mapping techniques, she added.

#### XII. NOMINATING COMMITTEE

Dr. Mayer appointed a committee to nominate the Regents Chairman for 1983-84: Mr. Welsh (Chairman), Dr. Abdellah, and Dr. Clark.

#### XIII. DIRECTOR'S AWARD

Dr. Cummings presented to Thelma Charen the 1983 NLM Director's Award. Ms. Charen, a member of the professional NLM staff since 1944, was recognized for her outstanding contributions to NLM indexing.

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MEETING CLOSED FOR THE REVIEW OF GRANT APPLICATIONS -- 9:00 TO 9:40 A.M., JANUARY 28  
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#### XIV. REVIEW OF PENDING APPLICATIONS

Before proceeding with the consideration of pending applications, Dr. Roger W. Dahlen, Chief of the Biomedical Information Support Branch, EP, informed Board members and consultants of confidentiality and conflict-of-interest procedures and reminded them to sign, at the conclusion of the grant application review, the statement 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, which met on January 26. A total of 54 applications was reviewed, of which 26 were recommended for approval, 22 for disapproval, and six for deferral. Grant applications recommended for approval by the Board are listed in the summary actions (Attachment B). Interim actions taken by Extramural Programs' staff since the October Board meeting were noted.

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THE MEETING WAS OPENED AT 9:40 A.M. AND REMAINED OPEN TO ADJOURNMENT AT 11:40 A.M.  
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#### XV. REPORT OF THE ACTING ASSOCIATE DIRECTOR FOR EXTRAMURAL PROGRAMS

Dr. William G. Cooper presented the projected FY 1983 MLAA budget at a total of \$7.5 million. He noted that approximately one-third of the \$7.5 million goes toward the support of the Regional Medical Library Program, another third supports the Research Program, and the remaining one-third is distributed among Training, Special Scientific Projects, Resource, and Publication grants. Of the total \$7.5 million, \$1.3 million, or 46 awards, have been allocated to competing renewal, or new awards, and \$3.7 million, or 48 awards, to noncompeting awards. Thus, excluding the RML contract obligations, \$5.0 million is anticipated to be available for a total of 94 awards in FY 1983.



The distribution among programs is approximately the same in FY 1983 as it was in FY 1982. In FY 1982, the total Research allocation was \$2.6 million for 31 awards and a total of \$5.1 million for all extramural programs, excluding RMLs.

### Board Operating Procedures

As required annually, Dr. Cooper presented for review the Board Operating Procedures--"Guidelines for Adjustments by Staff in Time or Amount of Grant Award." The Board reaffirmed the guidelines with one amendment, which raises all potential budget adjustments to be reported to the Board by staff from \$500 to \$1,000.

### XVI. COMPUTERS-IN-MEDICINE PROGRAM

Dr. Cooper restated NLM's past support of the program and outlined the Library's future anticipated commitments in relationship to the availability of funds:

1. Training Program Grants for Institutions--He presented a draft announcement for the new Training Grant Program, which was included in the agenda book for the Board's review. This will be a "one-time" Request for Applications for a limited number of institutional training programs, with support of up to five years. July 1, 1983, will be the date for receipt of applications, with the Board of Regents anticipated to make its final review recommendations at the January 1984 meeting.
2. Program Project Grants--Support for these grants will end in FY 1983 after a total commitment of \$5.0 million of intramural Lister Hill Center funds over the past five years.
3. Investigator-Initiated Research Grants for Computers in Medicine--In FY 1983 these grants will amount to an estimated \$2.09 million, or 17 awards. Of these, \$1.5 million, or 11 awards, clearly fall into the computers-in-medicine category. It is recommended that the current announcement for the Computers-in-Medicine Program be withdrawn and that no new/competing applications be accepted for FY 1984 funding. Instead, it is proposed that a new Research Grants Program announcement be issued to include information on: (1) what it is NLM will be able to support, (2) what type of applications will be referred for review to categorical institutes at NIH, and (3) a message to potential applicants advising them of NLM's limited resources.

Dr. Cooper asked Dr. Schoolman for his comments. Dr. Schoolman stated that it became abundantly clear with the \$2.5 million cut in the MLAA authorization that a careful examination of this program was necessary. NLM laid out alternatives in a letter to the Director of NIH, stating that either the source for the support of this activity has to be broadened or the activity within NLM has to be narrowed. Although there was sympathy and some interest at NIH, it soon became clear that nothing was going to happen in a timely fashion, if at all, to solve the problem. Discussions with the Division of Research Resources (DRR) were intense, and there is clearly an interest at DRR. They already support to a considerable extent some

activities which are similar, and some projects have been funded jointly by NLM and DRR. However, it is also clear that DRR is not in a position to underwrite this program in the next few years, which would allow continuity of NLM's current activity. NLM is, therefore, forced to adopt the second alternative, namely, the constriction of the program by choosing priorities. NLM will continue support of the Training Program, Research Career Development Awards, and the New Investigator Research Grants with certain restrictions. As already pointed out by Dr. Cooper, the Program Project Grants will terminate in 1983. That leaves the Investigator-Initiated Research Grants. Dr. Schoolman explained that the stabilization of the NIH research grants does not include NLM research grants, since NLM operates under a different authority, and therefore cannot rely on this mechanism. So how does NLM deal with the Investigator-Initiated Research Grants? Up to now this type of grant was explicitly designated under the computers-in-medicine category. That is no longer possible because of reduced funds. In combining this program with all other research grants, interested applicants could apply under the general information science research program and compete with all other research programs. That will require a rewriting of the Research Grants announcement to make the changes clear to the community. In conclusion, Dr. Schoolman noted that efforts have not been abandoned in trying to solicit and to increase the participation and involvement of other NIH elements. For instance, Dr. Cooper will explain these proposals, as modified by the Board, to the Associate Directors for Extramural Programs of the NIH Institutes, and NLM will work with DRG to enhance the redistribution of applications to categorical institutes when appropriate.

Dr. Mayer commented that the AAMC Study figures prominently into this issue: i.e., how does one take the existing computer science technologies that are now available to provide the constituencies, whether they be students, practitioners, faculty or biomedical researchers, with what they need in a more convenient, effective way. They need to see it and feel it to understand and use it. There is a need in terms of (1) R&D in training in the basic information sciences, as related to medicine, and (2) the development of prototypes under the AAMC Study.

Trying to prevent any misconceptions, Dr. Cummings wanted the Board to understand that the basic problem began with actions taken by a Senate legislative Committee two years ago, which reduced the authorizing level of support for the Medical Library Assistance Act from \$9.8 to \$7.5 million. Dr. Cummings believes that the Senate Committee was unaware that they were damaging this particular program, because the debate at that time was on other matters entirely. The Senate and House Appropriations Committees went out of their way to identify this program as one of high priority. He emphasized that until the level of authorization is raised, the Library cannot seek additional funds through the appropriations' process.

Dr. Molnar expressed his support of Dr. Cummings' letter to the NIH Director, which stated the problem succinctly and identified in a realistic sense what the alternatives are. It was his strong belief, that the continued advocacy of the role of the Library and this Board in this activity is extremely important. On the other hand, he also knows that the dimensions of the problem go well beyond NLM, and it is very clear that there is little more that could be done by the Library alone. The intellectual problems that have surfaced require basic research for their solution,

such as the integration of basic technological and mathematical methodologies with the substance of biomedical science. The critical intellectual task of learning how to apply the tools that have to be integrated with the body of medical science is needed, a task that will not be accomplished without NIH commitment. Dr. Molnar expressed some thoughts as to what should be done now: (1) The Library is to be commended for its honesty by bringing the realities of the circumstances to the attention of the grantees. This candor has been appreciated by the community. There is, however a feeling out there that nobody at NIH cares about these activities. Anything that the Library can do to build on its credibility with the community and continue to give assurances will be very helpful in avoiding a total loss of momentum. (2) Something should be done by addressing the assumption that it is everybody's problem and therefore no one's. A visible expression of interest in this area from NIH would be if a group could be established that would be motivated to identify just what the opportunities are. (3) There has emerged a largely unrecognized relationship of this issue to some of the economic issues of the country. It seems that some of the economic implications of missing of opportunities by the biomedical research enterprise are of concern outside the Library and NIH. (4) The demise of the Program Project Grants is particularly devastating. It is difficult to accomplish some things with small individual investigator grants; they do not have the sharing of skills and pooling of convictions that help to sustain the program project grants.

Dr. DeBakey raised the question if the positive results of the last ten-years' investment in the program have been adequately publicized. Dr. Cummings answered with an unequivocal "no," explaining that this community has not transmitted its accomplishments adequately, if at all, and he cited an example when the Library, much after the fact, found out that due to the methods developed by one of these NLM-supported programs a large amount of money has been saved.

XVII. ADJOURNMENT

The meeting was adjourned at 11:40 a.m., Friday, January 28, 1983.

\* \* \* \* \*

Wednesday, January 26, 1983, 1:00 to 4:30 p.m.  
(EP Subcommittee List of Attendees under Attachment C)  
Thursday, January 27, 1983, 9:00 a.m. to 4:30 p.m.  
Friday, January 28, 1983, 9:00 to 11:40 a.m.

\* \* \* \* \*

ACTIONS TAKEN BY THE BOARD OF REGENTS

1. The Board voted unaminously to adopt the revised Board policy statements.
2. The Chairman appointed a nominating committee for the selection of next year's Board Chairman, consisting of Mr. William J. Welsh, Chairman, Dr. Faye G. Abdellah, and Dr. Eloise E. Clark.
3. The Board concurred with recommendations of the Extramural Programs Subcommittee. Grant applications recommended for approval are listed in the summary actions (Attachment B).
4. The Board reaffirmed the Board Operating Procedures with one amendment.

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

*Martin M. Cummings* 3/31/83  
\_\_\_\_\_  
Martin M. Cummings, M.D. (Date)  
Executive Secretary

*W. D. Mayer* 3/31/83  
\_\_\_\_\_  
William D. Mayer, M.D. ((Date)  
Chairman

BOARD OF REGENTS OF THE NATIONAL LIBRARY OF MEDICINECHAIRMAN

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Alternate

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Board of Regents' Roster (continued)

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EXECUTIVE SECRETARY

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

COUNCIL DATE: JANUARY 1983

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER                      SHORT TITLE

2 T15 LM 07000-09

POSTDOCTORAL TRAINING IN MEDICAL INFORMATION SCIENCE

AMOUNTS  
RECOMMENDED

09      129,348

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 1983

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
2 R01 LM 03474-04	THE FRENCH VIEW OF YELLOW FEVER	04 11,629
2 R01 LM 03758-03	END USER REQUIREMENTS FOR OPTIMAL ONLINE SEARCHING	03 66,188 04 73,116
1 R01 LM 03849-01A1	AMERICAN HOSPITALS IN THE TWENTIETH CENTURY	01A1 7,096 02 37,265 03 1,850
1 R01 LM 04022-01	CLINICAL DECISION ANALYSIS AND THE INDIVIDUAL PATIENT	01 69,145 02 75,760 03 77,206
1 R01 LM 04034-01	DUAL: EY UNDERWATER VISION	01 12,157 02 5,421
1 R01 LM 04037-01	CLINICAL COGNITION: UNCERTAINTY, RISKS AND BENEFITS	01 60,835 02 66,919 03 73,611
1 R01 LM 04061-01	TRANSLATION OF VIRCHOW'S ESSAYS ON PUBLIC HEALTH	01 9,000 02 9,500
1 R01 LM 04084-01A1	DUAL: HS METHODS FOR MEDICAL TECHNOLOGY ASSESSMENT	01A1 29,600 02 9,711
1 R01 DA 03252-01A1	DUAL: LM SOURCE GUIDE ON INHALANT ABUSE	01A1 54,558 02 23,737
1 R01 DA 03314-01A1	DUAL: LM A COMPREHENSIVE ANNOTATED BIBLIOGRAPHY ON COCA	01A1 19,933

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 1983

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
1 R23 NS 18651-01A1	DUAL: LM	01A1 37,500
MY-AL: COMPUTERIZED DECISION MAKING IN EMC		02 36,500
		03 33,500

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 1983

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
1 G08 LM 04054-01	HOSPITAL LIBRARY/RESCUE SQUAD AUDIOVISUAL CONSORTIUM	01 51,072 02 36,682
1 G08 LM 04085-01	SOUTHWEST LOUISIANA AUDIOVISUAL SHARED SERVICES CENTER	01 57,000 02 51,000 03 49,000

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 1983

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
3 G07 LM 03819-01S1 CONSORTIUM IMPROVEMENT GRANT		01S1 30,000
1 G07 LM 03977-01A1 SINGLE-INSTITUTION GRANT		01A1 4,000
1 G07 LM 04057-01 CONSORTIUM IMPROVEMENT GRANT		01 15,245
1 G07 LM 04059-01 CONSORTIUM IMPROVEMENT GRANT		01 24,000
1 G07 LM 04066-01 SINGLE-INSTITUTION GRANT		01 4,000
1 G07 LM 04074-01 SINGLE-INSTITUTION GRANT		01 4,250
1 G07 LM 04077-01 SINGLE-INSTITUTION GRANT		01 4,000
1 G07 LM 04080-01 CONSORTIUM IMPROVEMENT GRANT		01 26,504
1 G07 LM 04081-01 CONSORTIUM IMPROVEMENT GRANT		01 14,640
1 G07 LM 04082-01 CONSORTIUM IMPROVEMENT GRANT		01 44,000
1 G07 LM 04088-01 SINGLE-INSTITUTION GRANT		01 4,350 .
1 G07 LM 04089-01 SINGLE-INSTITUTION GRANT		01 3,506

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 26, 1983

ATTENDEES

Subcommittee Members Present:

Dr. L. Thompson Bowles  
Dr. Lois E. DeBakey  
Brig. Gen. Vernon Chong  
Dr. Gwendolyn S. Cruzat  
Dr. John L. Townsend  
Dr. Nicholas E. Davies (Consultant)

Other Board Members Present:

Dr. William D. Mayer  
Dr. David O. Moline  
Dr. Charles E. Molnar

NLM Staff Present:

Dr. Martin M. Cummings, Director, NLM  
Dr. Harold M. Schoolman, Deputy Director for Research and Education, OD  
Dr. William G. Cooper, Acting Associate Director, EP  
Dr. Jeanne L. Brand, Chief, International Programs Branch, EP  
Mr. Arthur J. Broering, Deputy Associate Director, EP  
Mrs. Helen Bennison, Grants Management Specialist, EP  
Mr. Peter A. Clepper, Program Officer, EP  
Mrs. Karin K. Colton, Committee Management Assistant  
Dr. Roger W. Dahlen, Chief, Biomedical Information Support Branch, EP  
Dr. Richard B. Friedman, Director-designate, LHNCBC  
Mrs. Frances H. Howard, Special Asst. to the Actg. Associate Director, EP  
Mrs. Rose Marie Holston, Program Analyst, Office of Program Planning and Evaluation, EP  
Mrs. Frances E. Johnson, Program Officer, EP  
Mrs. M. Kathleen Nichols, Grants Management Specialist, EP  
Mrs. Marguerite L. Pusey, Administrative Officer, EP  
Mrs. Roberta Spolin, Grants Management Specialist, EP  
Mr. Richard T. West, Chief, Office of Program Planning and Evaluation, EP  
Mr. Randall Worthington, 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

73rd Meeting of the

BOARD OF REGENTS

9:00 a.m., May 26-27, 1983

NMAC CLASSROOM  
NLM Lister Hill Center Building  
Level B-1

MEETING OPEN: All day on May 26 and from 10:00 a.m. to adjournment on May 27.  
MEETING CLOSED: From 9:00 to 10:00 a.m. on May 27 for the review of grant applications.

- I. CALL TO ORDER AND INTRODUCTORY REMARKS Dr. William D. Mayer
- II. REMARKS BY THE DEPUTY ASSISTANT SECRETARY FOR HEALTH AND SURGEON GENERAL, PHS Dr. C. Everett Koop
- III. REMARKS BY THE DIRECTOR, NIH Dr. James B. Wyngaarden
- IV. CONSIDERATION OF JANUARY MINUTES TAB I Dr. William D. Mayer  
(Agenda Book)
- V. DATES OF FUTURE MEETINGS
- Fall Meeting: October 13-14, 1983 (Th-F) -- CONFIRMED
- Winter Meeting: January 26-27, 1983 (Th-F) -- CONFIRMED
- Spring Meeting: May 17-18 (Th-F) OR May 24-25 (Th-F), 1983 -- PROPOSED
- PLEASE NOTE: Medical Library Association Annual Meeting  
May 25-31, 1983 -- Denver
- COFFEE BREAK
- VI. REPORT OF THE DIRECTOR, NLM TAB II Dr. Martin M. Cummings
- Discussion Board Members

5/18/83

(Photograph of Board members to be taken in front of mural in lobby of LHC Building.)

LUNCHEON CATERED IN CLUSTER CONFERENCE ROOM 12:00-1:00

VII. REPORT ON THE LISTER HILL NATIONAL CENTER FOR BIOMEDICAL COMMUNICATIONS TAB III Dr. Richard B. Friedman Dr. Charles C. Edwards, Discussant

Discussion Board Members

VIII. COPYRIGHT ISSUES AS EFFECTED BY NEW TECHNOLOGIES TAB IV Dr. Harold M. Schoolman

Discussion Board Members

COFFEE BREAK

IX. REVIEW OF PRICING POLICIES TAB V Mr. Kent A. Smith, Mrs. Shirley Echelman, Discussant

Discussion Board Members

X. REPORT OF THE NOMINATING COMMITTEE Mr. William J. Welsh

R E C E S S \* \* \* \* \*

DINNER ..... Bethesda Naval Officers' Club Cocktails ..... 6:30 p.m. "Bridge Room" Dinner ..... 7:30 p.m.

SPEAKER: Dr. Nicholas E. Davies, Attending Physician, Piedmont Hospital, Atlanta; and former Board Chairman

TOPIC: "William Cobbett, Benjamin Rush, and the Death of George Washington"

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R E C O N V E N E: Friday, May 27, 9:00 a.m. -- NMAC Classroom

MEETING CLOSED FOR THE REVIEW OF GRANT APPLICATIONS, 9:00-10:00 A.M., MAY 27, 1983

- XI. SPECIAL APPLICATIONS (Gray Workbook)
  - A. Research TAB I Dr. Roger W. Dahlen
  - B. Resource TAB II " " " "

- XII. SUMMARY STATEMENTS
  - A. Research TAB III Dr. Roger W. Dahlen
  - B. Career Development TAB IV " " " "
  - C. Resource TAB V " " " "
  - D. Improvement TAB VI " " " "
  - E. Publication TAB VII Dr. Jeanne L. Brand

MEETING OPEN FROM 10:00 A.M. TO ADJOURNMENT, May 27, 1983

- XIII. REPORT OF THE ACTING ASSOCIATE DIRECTOR FOR EXTRAMURAL PROGRAMS TAB VI Dr. William G. Cooper  
EP Subcommittee Members,  
Discussants
  - A. EP Budget and Funding Plans
  - Discussion Board Members

COFFEE BREAK

- XIV. PUBLICATION GRANT AND PUBLIC LAW 480 PROGRAMS TAB VII Dr. Jeanne L. Brand  
Dr. Lois E. DeBakey, and  
Dr. Saul Jarcho,  
Discussants
  - Discussion Board Members

- XV. NEW BUSINESS Dr. William D. Mayer

- XVI. ADJOURNMENT Dr. William D. Mayer

DEPARTMENT OF HEALTH AND HUMAN SERVICES

NATIONAL INSTITUTES OF HEALTH  
NATIONAL LIBRARY OF MEDICINE

BOARD OF REGENTS  
MINUTES OF THE 73RD MEETING  
MAY 26-27, 1983

NMAC CLASSROOM  
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 26-27, 1983

The Board of Regents of the National Library of Medicine was convened for its seventy-third meeting at 9:00 a.m. on Thursday, May 26, 1983, in the NMAC Classroom of the National Library of Medicine, Bethesda, Maryland. Dr. William D. Mayer, Chairman of the Board of Regents, and President of the Eastern Virginia Medical Authority, presided. In accordance with P.L. 92-463 and the Determination of the Director, NIH, and as announced in the Federal Register on April 15, 1983, the meeting was open to the public from 9:00 a.m. to 4:30 p.m. on May 26 and from 9:50 to 11:40 a.m. on May 27. The meeting was closed from 9:00 to 9:50 a.m. on May 27 for the review, discussion, and evaluation of grant applications. A Board roster is enclosed under Attachment "A."

Board members present were:

Dr. L. Thompson Bowles (May 26)  
Dr. Eloise E. Clark (Ex officio) (May 26)  
Vice Adm. J. William Cox (Ex officio)  
Dr. Gwendolyn S. Cruzat  
Dr. Lois E. DeBakey  
Mrs. Shirley Echelman  
Dr. Charles C. Edwards  
Dr. C. Everett Koop (Ex officio) (May 26)  
Dr. William D. Mayer  
Dr. David O. Moline  
Dr. Charles E. Molnar  
Dr. John L. Townsend

Alternates to ex officio members present were:

Dr. Faye G. Abdellah, representing Dr. C. Everett Koop.  
Brig. General Vernon Chong, representing Lt. General Max B. Bralliar.  
Mr. James M. Hahn, representing Dr. Donald L. Custis.  
Mr. William J. Welsh, representing Dr. Daniel J. Boorstin.

Unable to attend:

Col. James E. Hastings  
Dr. Edward J. Huth

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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 Libraries 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, OD  
Mr. John Anderson, Director, Information Systems, OD  
Mr. Jules Aronson, Acting Chief, Computer Science Branch, LHNCBC  
Mr. Harry D. Bennett, Director for Computer and Communications Systems  
Mr. Albert Berkowitz, Chief, Reference Services Division, LO  
Dr. Jeanne Brand, Chief, International Programs Branch, EP  
Dr. Charles Bridgman, Acting Chief, Audiovisual Program Development Branch,  
LHNCBC  
Mr. Arthur J. Broering, Deputy Associate Director for Extramural Programs  
Dr. Donald Buckner, Special Assistant for Health Professions Education, LHNCBC  
Mr. Kenneth Carney, Executive Officer, OD  
Ms. Lois Ann Colaianni, Acting Associate Director for Library Operations, LO  
Dr. William G. Cooper, Associate Director for Planning and Acting Associate  
Director for Extramural Programs  
Dr. Roger W. Dahlen, Chief, Biomedical Information Support Branch, EP  
Dr. Richard B. Friedman, Director, Lister Hill National Center for Biomedical  
Communications  
Mr. B. Earl Henderson, Acting Deputy Director, LHNCBC  
Mr. Charles E. Herbert, Assistant Director for Program Planning and Coordination,  
LHNCBC  
Dr. Henry M. Kissman, Associate Director for Specialized Information Services  
Mr. Sheldon Kotzin, Chief, Bibliographic Services Division, LO  
Ms. Nina W. Matheson, Special Expert Consultant, OD  
Mr. Robert B. Mehnert, Chief, Office of Inquiries and Publications Management, OD  
Mr. Stanley J. Phillips, Deputy Executive Officer, OD  
Mr. Mark J. Rotariu, Chief, Office of Financial Management, OD  
Dr. Elliot R. Siegel, Special Assistant for Operations Research, OD  
Dr. George R. Thoma, Acting Chief, Communications Engineering Branch, LHNCBC  
Dr. Michael Weisberg, Acting Chief, Training and Consultation Branch, LHNCBC  
Mr. Richard T. West, Chief, Office of Program Planning and Evaluation, EP

Others present included:

Dr. James B. Wyngaarden, Director, NIH  
Dr. Lester Aungst, NIH Extramural Associate  
Dr. Nicholas E. Davies, Attending Physician, Piedmont Hospital, Atlanta --  
Consultant, NLM  
Dr. Saul Jarcho, New York Academy of Medicine -- Consultant, NLM  
Mrs. Ileen Stewart, Executive Secretary, Special Studies Section, DRG, NIH

Members of the public present:

Mr. Thaddeus Plante, Legal Assistant, Kaye, Scholar, Fierman, Hays & Handler  
Ms. Carter Blakey, Reporter, "The Blue Sheet"

## I. OPENING REMARKS

Dr. William D. Mayer, Chairman, welcomed the Regents, consultants, and guests to the 73rd meeting of the Board of Regents. He noted that two Regents will be retiring from the Board--Dr. John Townsend and Dr. Edward Huth--and that ex officio member, Vice Admiral J. William Cox, will be retiring from the service, and thus is also attending his last meeting. On behalf of the Board and NLM staff, Dr. Mayer thanked them for their contributions to the Library.

The Chairman remarked that two issues discussed extensively at the last meeting--the potential offered by the AAMC study and the curtailed computers-in-medicine research and training program--are still concerns today. He expressed his fear that for lack of "a few dollars" these will become "missed opportunities." He noted that there will be similar important issues discussed at this meeting, especially the Department's study of NLM and the pricing issues.

## II. REPORT OF THE SURGEON GENERAL, PHS

Dr. C. Everett Koop, PHS Surgeon General and Deputy Assistant Secretary for Health, described his present position as encompassing not only those two titles but also the post of Director of the HHS Office of International Health. He summed up his duties thus: As Deputy Assistant Secretary for Health he is largely responsible for "trouble-shooting;" as Surgeon General (the thirteenth since 1798) he heads the Public Health Service, serving, as he described it, in the "narrow part of the hourglass" between the public and the government and advising each on matters of public health; and as Director of the Office of International Health he heads an operation which has been cut from a staff of almost 100 shortly before he came to its present five--with continuing responsibility, however, for supervising the Department's relations with the World Health Organization and the Pan American Health Organization, overseeing 13 international treaties, and carrying out 30 agreements on exchanges. Dr. Koop said that he sees himself as an advocate within HHS for the disabled, children, and the elderly. He briefly described the range of services available for these groups and the problems and potentials in serving them. The PHS Surgeon General has extensive responsibilities on the governing boards of various medical institutions--Uniformed Services University of the Health Sciences, Armed Forces Institute of Pathology, Gorgas Memorial Institute, American Medical Association, and National Library of Medicine. As Commanding Officer of the PHS Commissioned Corps, the Surgeon General has a special kinship with the uniformed services, and he is involved in a wide range of their activities. Dr. Koop mentioned such other PHS responsibilities as providing health care services for Federal prisons, merchant seamen, the Coast Guard, and American Indians, and for putting out formal Surgeon General's reports, such as the recent one on disabled children. The position of PHS Surgeon General, he said, has many ceremonial functions and frequently is a "lightning rod" for controversial topics such as liver transplantation.

### III. REPORT OF THE NIH DIRECTOR

Dr. James B. Wyngaarden, NIH Director, commented that the situation today at NIH is the complete reversal of that in the fifties and the sixties. At that time there was a lack of trained scientists and a dearth of validated scientific information but abundant appropriations which could be applied to addressing these problems. Today, on the other hand, there is a huge body of scientific knowledge and a large cadre of competent biomedical scientists, but budgets are not growing commensurately. The 1973 and 1983 NIH budgets are the same in constant dollars. Dr. Wyngaarden reported on the recent round of legislative and appropriation hearings in the House and Senate. The hearings for the most part were cordial; the most controversial issues were those dealing with NLM and user fees. Responding to a question from Dr. Davies, the NIH Director said that on May 27 Dr. Cummings and he would report to the Assistant Secretary for Health on recent developments on the cost-recovery issue. The new HHS Secretary, however, is not familiar with this issue and it will be necessary to start over again to lay the groundwork for an HHS position on the subject.

### IV. REPORT OF THE NLM DIRECTOR

Dr. Martin M. Cummings, NLM Director, reviewed the current budget situation. NLM is operating under a continuing resolution through September 30, at a level of \$46,043,000. There is a deficit because of a mandatory increase in salaries. NLM is hopeful that about \$1 million will be reprogrammed to cover this. The Administration's FY 1984 budget calls for \$49,616,000 for NLM. Most of the increase is earmarked for basic library services and the continued development of MEDLARS III. The funds available under the Medical Library Assistance Act (MLAA) remain at \$7.5 million. The Congressional committees that reviewed NLM's budget authorization level have approved a restoration of MLAA funds to \$10 million for FY 1984 and increases to \$11 million and \$12 million for subsequent years. Dr. Cummings presented slides that showed how the NLM budget over three years has been distributed among its programs. As to staffing, the Director noted that the category of "expert consultants"--professionals who work on special assignments for two to four years for the Federal government--will now count against the overall NLM ceiling. Previously these 15 positions at NLM had not been so counted. He said these positions were extraordinarily useful in acquiring people with special talents.

The Director said the most important events of the recent past have been the appropriations hearings in the House and Senate. Senator Weicker has assumed chairmanship of the Subcommittee responsible for the NIH budget; the Senate hearings were cordial and the Chairman was knowledgeable about and sympathetic to NIH and NLM. Wording in the Administration's budget presentation that would allow NLM to use revenues derived from the sale of services was challenged by Senator Weicker. After he was assured that the charge was at the behest of OMB, not NLM, NIH or the Department, the Senator said he would not allow such a change without the concurrence of the appropriate legislative committees. In the House hearings, Dr. Cummings said, Rep. Conte was reluctant to believe that NLM had not "slipped the wording in" about the use of these revenues, and he was critical of NLM for this. At this point Dr. Wyngaarden joined the meeting and made his remarks to the Board (see previous section).

Following the NIH Director's presentation, Dr. Cummings announced that this meeting of the Board of Regents would be his last. Dr. Cummings said he has been in Federal service for 40 years, 20 of them as NLM Director. On looking back over the last two decades, he said, he was gratified at the progress made: MEDLARS (1964), the Medical Library Assistance Act (1965), MEDLINE (1971), and the Lister Hill Center building (1980). He praised the Library's exceptional staff of diverse talents and skills and expressed thanks for the support of the Directors of NIH, the PHS Surgeons General, and American medicine in general. The many outstanding individuals who have served over the years on the NLM Board of Regents also deserve much of the credit for the institution's success.

Only in the last several years, he said, has there been opposition to the Library's services. Because he views the recent activities of Elsevier Science Publishers and the registered foreign agents that firm has hired as a threat to NLM, Dr. Cummings presented to the Regents several tables of information taken from the Department of Justice documents that listed chronologically the contacts with Federal executives and organizations by Elsevier's lawyers. These numbered some 70 over a two-year period--with Congressmen and Senators, members of their staffs, staffs of Congressional committees, representatives of the Office of Technology Assessment, National Institutes of Health, Department of Health and Human Services, Office of Management and Budget, General Accounting Office, Executive Office of the President (and Vice President), Office of the U.S. Trade Representative, and the President's Private Sector Survey on Cost Control. The Director said that if efforts to force NLM to raise its prices are successful, there will be serious adverse effects. First, it will make it difficult for health-sciences students to afford the services the Library has traditionally provided. Second, artificially high prices will enable foreign databases to capture the American market. Why should one of the three U.S. national libraries be compelled to operate like a business enterprise? Libraries have evolved with societal support to serve all citizens. To change this philosophy by insisting that knowledge be sold for profit will not only be damaging to NLM but may lead to the demise of all public libraries. Finally, Dr. Cummings listed a number of recent issues that have had a deleterious effect on NLM operations: reduction of grant funds; denial of permission to publish and distribute publicly an annual report; delays in approval of MEDLARS III; the raising of prices to the point where NLM is now generating an unnecessary profit; a third study of NLM by HHS, following the two recent MEDLARS studies by the Office of Technology Assessment and the General Accounting Office; and the President's Private Sector Task Force Report that recommended a reduction of 68 positions at NLM.

Dr. Cummings closed by saying that this is not a time for "timidity or contentment." Courageous and industrious leadership as well as wise and prudent advice is required from the Board of Regents. He thanked the Regents for their support and said that he left for his successor not only the world's greatest treasury of medical literature but the finest and most competent staff of any medical library.

This unexpected announcement was followed by a series of expressions by Dr. Wyngaarden and individual Regents about Dr. Cummings' superior leadership of the NLM and the loss to American medicine that his retirement represents.

The Regents voted unanimously to have Dr. Mayer write to the NIH Director to offer the Board's assistance in the search for a new Director of the National Library of Medicine (Attachment E).

#### V. CONSIDERATION OF MINUTES OF PREVIOUS MEETINGS

The Regents approved without change the minutes of the January 27-28, 1983, meeting.

#### VI. DATES FOR FUTURE MEETINGS

The Board will meet next on October 13-14. The dates of January 26-27, 1984, were confirmed for the following meeting. May 24-25, 1984, were the tentative dates selected for next spring's meeting.

#### VII. DEPARTMENT'S STUDY OF NLM

Dr. Mayer introduced a discussion of the ongoing HHS study of NLM by noting that this is the third such study within the span of a few years. Two studies were recently completed by the General Accounting Office and the Office of Technology Assessment. Referring to the HHS Interim Report (the final report is due in September 1983), the Chairman quoted a passage that said that one purpose of the review is to "determine the cost of research and development efforts which have contributed to the development and support of MEDLARS or interlibrary loans. This information will allow the full cost of both MEDLARS and interlibrary loans to be identified and included in the evaluation of cost recovery policies to be applied to them." This is the equivalent of saying, for example, that the costs of NIH intramural and extramural research should ultimately be recovered from the drug industry or anyone else who has benefited from the biomedical research.

Dr. Schoolman commented that there is an unresolved conflict about what constitutes "full cost recovery." The National Commission on Libraries and Information Science and the Office of Technology Assessment have defined it as including the costs of providing access to the information. Others define it to include every cost which is associated with the ultimate product--the acquisition of the material and the research involved in creating the retrieval system, for example. If this latter view prevails, NLM could no longer provide services as an instrument of society but would be operated as a business. The Library could no longer afford to maintain custody of materials that, although important, do not generate sufficient revenue to cover the costs of storing and providing access to them.

Ms. Echelman suggested that the Regents prepare a position paper about the importance of NLM to society and the serious problems that would be associated with "full" cost recovery. Dr. Edwards suggested that the Board appoint a committee to draw up an overall strategy to deal with this matter. After extensive discussion, Dr. Mayer asked Dr. DeBakey, Ms. Echelman, and Dr. Davies to develop a position paper within two months that, after being circulated to the Regents for comment, could be submitted to Secretary Heckler. Dr. Mayer will also participate in preparing the position paper.

## VIII. REPORT OF THE LISTER HILL CENTER

Richard B. Friedman, M.D., the newly appointed Director of the Lister Hill National Center for Biomedical Communications, described for the Board his vision of how the recently reorganized Lister Hill Center will function. Earlier this year the Center absorbed the programs of the National Medical Audiovisual Center and was reconstituted with six Branches: Communications Engineering, Computer Science, Information Technology, Audiovisual Program Development, Health Professions Applications, and Training and Consultation.

Dr. Friedman said that one of his first tasks will be to re-orient the audiovisual functions to be more research- and less service-centered. Also, he plans to develop the LHC as a center of research and development excellence, both for the health community at large and for NLM itself. To this end, he has changed the management style from a hierarchical section-oriented structure to a project management matrix system patterned on the academic or university model. This will emphasize collaboration between sections and branches and de-emphasize rigid organizational responsibility for projects. Dr. Friedman has done much recruiting over the last six months of people from outside the government with extensive R&D experience. He will be making full use of the flexibility afforded by the "special expert" positions. Dr. Friedman also announced his intention of providing greater support for projects that are aimed at non-physician health care professionals. Another new emphasis will be to increase LHC's research efforts to develop innovative technologies for disseminating research-generated information to aid patients. Current efforts in the area of computers-in-medicine will be continued and the Center will be a national focus for such research. Also to be continued is what Dr. Friedman called "survey research"--finding out what is currently available in the community and circulating this information widely. Because there is so much ferment in biomedical communications, the literature is several years behind. Consensus reports and update reports should be prepared and distributed by LHC.

Dr. Friedman enumerated several specific areas of increased concentration in the near future: computer-based education, a learning resource demonstration center, visual databases on videodisc, bibliometrics, man/machine interaction, decision analysis, and improved access to the literature. He discussed each in some detail and described the opportunities for LHC research and development. He emphasized that these will be long-term (5-10 years) continuing efforts. Dr. Friedman said that he will welcome the guidance of the Board on setting priorities in these areas.

## IX. COPYRIGHT ISSUES

Dr. Harold M. Schoolman, NLM Deputy Director for Research and Education, reported about an ad hoc group that has met three times to discuss copyright issues as they are effected by new technologies. Convened under NLM sponsorship, the group, though chosen as individuals, represented the publishing industry, libraries, information vendors, and professional societies. The Chairman is Dr. Robert Hayes, Dean of the UCLA Graduate School

of Library and Information Science. A final report of the group's deliberations is now being prepared and Dr. Hayes will be on the agenda for the next Board meeting to discuss the report. Dr. Schoolman said that among the topics addressed were the problems of deteriorating library materials, the use of abstracts in secondary publications, the influence of downloading on the pricing of information services, the loss of advertising revenue attributable to the rise of online publications, and the meaning of a differential pricing structure for libraries that presumably implies a license to do something more than an individual subscriber.

#### X. REVIEW OF PRICING POLICIES

Mr. Kent A. Smith, NLM Deputy Director, reported that the Board's Pricing Subcommittee met the previous day to review NLM's policy for pricing online services. Adopted in May 1982, it states that the Library should recover the full costs associated with providing access to the databases, but not those costs for database generation and maintenance. The Subcommittee reviewed a cost analysis prepared by NLM's Budget Officer which showed that the distribution between creation and accessing costs for FY 1982 remained about the same as the 1981 figures. Online costs still average about \$19/hour and this is reflected in NLM's pricing structure. The charges of \$15/hour (nonprime time), \$22/hour (prime time), and \$0.18 per page recover about 108% of access costs. Similarly, under the new rate structure for leasing tapes, NLM is now recovering 103% of the full costs. The two commercial vendors of NLM databases, BRS and DIALOG, also have instituted differential rates for prime and nonprime time for MEDLINE. One recommendation to the Subcommittee was to reduce the use fee that NLM charges its licensees for MEDLINE during the evening hours in order to encourage end-user direct access. The Subcommittee also examined whether a differential charge should be instituted for health and nonhealth-related use of MEDLARS. This was recommended by last year's GAO study of MEDLARS. NLM has proposed that a simple survey be conducted to identify nonhealth related users.

The Subcommittee also reviewed NLM's pricing policy for specialized data banks, such as the Toxicology Data Bank (TDB). It was proposed that such data banks, which are nonbibliographic in nature, more costly to develop and maintain, and tend to be utilized mostly by government and industry, should be priced separately from the regular MEDLARS bibliographic files. It was stated that outside support for the building of TDB would be necessary.

Another important issue considered by the Subcommittee was whether NLM should change to calculating online user charges on the basis of an algorithm (in place of a standard connect-hour fee). Higher speed terminals and faster mainframe computers have made it possible for an online system to deliver three to four times the volume of data in a given time as formerly. Also, the growing use of microcomputers as intelligent terminals makes it possible for the user to generate his search before going online. The subsequent computer-to-computer interaction can be very swift and therefore economically deleterious for online centers charging by elapsed time. NLM has developed several algorithms that might replace the current hourly connect charge and yield approximately the same revenue. The components of these algorithms are: an hourly telecommunication charge (40%), a charge based on the number of characters transmitted (30%), and a charge based on



the number of computer work transactions (30%). At Mr. Smith's request, Mr. John Anderson, Director of Information Systems, explained to the Regents how a charging algorithm would work.

Mr. Smith pointed out that the new algorithm would be useful in creating subsets of files generated from the MEDLINE files and used locally for online searching. Database creators, including NLM, have been asked by their user communities to establish policies for subset distribution. NLM has begun to study this issue and is attempting to develop a flexible policy that can be applied to individual users as well as service organizations. Development of subject-oriented subsets in collaboration with professional societies will also be explored. It is hoped that a subset policy can be finalized at the October Board meeting.

The last issue presented by Mr. Smith was the proposal to begin charging for interlibrary loans provided by NLM. Except for loans to foreign institutions, interlibrary loan services have been provided without charge by NLM. The Library is recommending that beginning October 1, 1983, a charge of \$5 per domestic and \$7 per foreign loan be established. This charge would conform to the network maximum established for the Regional Medical Libraries and Resource Libraries.

Following Mr. Smith's presentation, Ms. Echelman formally presented nine recommendations of the Subcommittee that cover all areas of pricing touched on by Mr. Smith. After discussion and, in several cases, amendment, the Regents approved all recommendations. They are contained in Attachment B.

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MEETING CLOSED FOR THE REVIEW OF GRANT APPLICATIONS -- 9:00 TO 9:50 A.M., MAY 27, 1983  
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#### XI. REVIEW OF PENDING APPLICATIONS

Before proceeding with the consideration of pending applications, Dr. Roger W. Dahlen, Chief of the Biomedical Information Support Branch, EP, informed Board members and consultants of confidentiality and conflict-of-interest procedures and reminded them to sign, at the conclusion of the grant application review, the statement 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 which met on May 25. A total of 57 applications was reviewed, of which 32 were recommended for approval, 22 for disapproval, and three for deferral. Grant applications recommended for approval by the Board are listed in the summary actions (Attachment C). Interim actions taken by the Extramural Programs' staff since the January Board meeting were noted.

It is noted that during the discussions of applications from Michigan State University, University of Michigan, Mercer University, and Mt. Sinai School of Medicine, either Drs. Cruzat, Davies, or Jarcho left the conference room.

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THE MEETING WAS REOPENED AT 9:50 A.M. AND REMAINED OPEN TO ADJOURNMENT AT 11:40 A.M.  
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## XII. REPORT OF THE ACTING ASSOCIATE DIRECTOR FOR EXTRAMURAL PROGRAMS

Dr. William G. Cooper presented the revised FY 1983 budget for Extramural Programs, noting that previous projections are closely on target. He briefly discussed the newly rewritten and revised fact sheets for NLM's Research, Resource, and Training Grant Programs. This is in keeping with a concerted effort to stimulate an increase in high-quality applications for EP's grant programs. In addition, a new Training Program Announcement was issued in April. Applications will be received on a one-time basis and are due August 1. The Biomedical Library Review Committee will review them in November and the Board in January. Successful applicants will be able to begin their program in July 1984. Touching briefly on the IAIMS (Integrated Academic Information Management Systems) progress, Dr. Cooper noted that it continues to be widely discussed in the academic and library communities. Dr. Cummings, together with Ms. Nina Matheson and Dr. Marjorie Wilson, will be part of a panel to describe some of the aspects of the program at the Medical Library Association (MLA) meeting in Houston next week. The MLA October Bulletin will contain a series of discussions of papers, as well as a paper from NLM in response to the recommendations. On March 2 a notice advertising the Request for Proposal (RFP) for the strategic planning phase, was published in the Commerce Business Daily. Inquiries for RFPs have been received to date from a broad spectrum of academic institutions--library schools, professional associations, research and development firms, and hospitals. June 10 is the due date for the receipt of proposals, and they will be reviewed by a technical evaluation group on June 27 and 28. Awards should be made some time in August.

Dr. Cooper then touched on another program issue, the "bioethics" grant with Georgetown University's Kennedy Institute of Ethics. During the last nine years the Library has funded this program at a total cost of over \$800,000. Ten NIH institutes have committed a total of \$95,000 in FY 1983 to permit Bioethicsline to continue until a renewal proposal can be prepared. A new grant application will be forthcoming and will be reviewed by an appropriate NIH initial review group.

Dr. Cooper concluded his remarks by announcing to the Board the names of the new members of the Biomedical Library Review Committee who will begin their four-year term of office on July 1: Dr. C. Michael Brooks of the University of Alabama, Dr. Robert A. Greenes, Brigham & Women's Hospital, Dr. Lillian Haddock, University of Puerto Rico, and Dr. Henry Riecken of the University of Pennsylvania.

## XIII. PUBLICATION GRANT AND PUBLIC LAW 480 PROGRAMS

Dr. Jeanne L. Brand, Chief of the International Programs Branch, EP, reviewed the development of these two programs and noted that the last review before the Board of Regents took place some five years ago. She referred to a booklet that had been distributed to Board members earlier which cataloged all biomedical publications received since 1965. The Special Foreign Currency Program operates under separate legislative authorities. The basic legislation for the program is Public Law 480, the Agricultural Trade, Development and Assistance Act of 1954. The U.S. dollar-funded Publication Grant Program is authorized, as are the other NLM extramural grant programs, by the Medical Library Assistance Act.

Dr. Brand first turned to the domestic Publication Grant Program, the long-term objectives of which include the financial support for nonprofit biomedical, scientific publications to synthesize, increase the availability, and facilitate the use of biomedical information. Support is given for short-term (no more than three years), moderate-cost projects, and since they are "nonprofit," they are usually published through university presses. Eligible for support are the preparation and publication of analytic critical reviews and biomedical monographs, studies in the history of medicine, secondary literature tools, periodical publications (limited to pilot or temporary support), publications in medical librarianship, health information science and biomedical communications. Ineligible for funding are textbooks, or other commercially viable studies; materials to be used in course curricula; primary reporting or original research findings; routine proceedings of annual scientific meetings and projects which are of local interest only, without national implications.

Limited funds and their curtailment over the last five years have had a sharp impact on this program, which dropped from 47 awards totaling \$1,069,155 in FY 1978 to 20 awards totaling \$503,452 in FY 1982. In FY 1982 about 16 percent of the Publication Grant funding supported critical reviews; 41 percent, studies in the history of medicine; 17 percent, secondary literature tools; 6 percent, periodicals; and 20 percent, library and information science. Dr. Brand noted that the Georgetown University's Kennedy Institute of Ethics' atypically large grant, now in its final year of NLM support, absorbed a large share of the program funding in FY 1982. After noting the considerations in scientific review of Publication Grant applications, Dr. Brand showed a few slides of examples of recent books resulting from the program.

Turning to the Special Foreign Currency Program, Dr. Brand noted that, by its nature, this is a far more complex program. As the program's name implies, funds can only be used in the currency of the country of origin and cannot be converted into U.S. dollars. The funds were derived originally from the sale of surplus U.S. agricultural products in countries which, after World War II, suffered severe economic hardships. These funds have permitted NLM to use valuable foreign resources in the preparation and publication of biomedical studies beneficial to U.S. health professionals. Funds have run out in a number of countries, and NLM has tried to develop stable funding bases in P.L. 480 bloc grants and contracts. These currencies are described as "no-year funds," which means that their use is not tied to any particular fiscal year. In Poland, for example, the Library is drawing on allocations which were put into bloc agreements in 1976. At present, programs are sponsored by NLM in Egypt, India, Pakistan, Poland, Yugoslavia, and Israel. In Israel, however, funds have been exhausted, and the program is only active to the extent that eight subprojects have not yet been completed. The Special Foreign Currency Program has been beneficial to U.S. health sciences, giving access to biomedical knowledge not otherwise available because of language limitations. In the last twenty years NLM has obligated slightly over \$10.5 million U.S. dollar-equivalents in foreign countries. During those years, Poland, Israel and Yugoslavia, the countries in which the first collaborative programs were developed, have received the largest investment.

Projects active in FY 1982 amounted to \$1,013,844 in dollar-equivalent foreign currencies, with Poland and India receiving the largest share, followed by Egypt and Yugoslavia, and a small investment in Israel and Pakistan. Since its inception, by far the most productive of all the programs has been that in Israel, begun with the first P.L. 480 research agreement with the Israel Journal of Medical Sciences, which developed into a large bloc program, including both critical reviews and MEDLARS indexing. Poland has had a very active critical-review program since the mid-1960's. The Polish program has resulted to date in the publication of 36 critical review monographs. Fourteen are still active, and, depending on the political situation, additional Polish zlotys could become available to the Library. NLM was unable to establish a strong critical review program in Yugoslavia. The problem stemmed from the country's makeup of a loosely-linked federation of quite separate cultures. However, the Yugoslavs have access both to translating skills and to excellent paper supplies, and NLM funding has been used in an existing NSF contract in Belgrade to print a number of books translated both in Yugoslavia and elsewhere. In Egypt, as well, no strong centrally-directed critical review program has been feasible. Small research agreements, principally in Arabic medical history, and also translations and printing, have been carried out with the Al-Ahram Publishing Company in Cairo. India, however, which at the start of the program had only a small share of the Library's funding, has today become a major resource, with approximately \$800 million dollar-equivalents still available in Indian rupees owned by the United States Government.

In conclusion, Dr. Brand stated that, measured by book reviews, both the domestic Publication Grant Program and the Special Foreign Currency Program have consistently produced books of good quality and a number of outstanding works. Funds for both programs have been reduced in the last five years, but NLM has continued to activate and publish critical reviews and a variety of other translations and publications. Much of the effort in the Public Law 480 Program over the next several years will go into the translation and publication of classics in the history of medicine.

Dr. Brand then asked Drs. Jarcho and DeBaKey, participants of the Board's Extramural Programs Subcommittee, for their comments. Dr. Jarcho commended Dr. Brand and her staff for their excellent work in both programs. He noted that since a significant part of the money goes to the support of the history of medicine in the United States, it is unfortunate that this branch of knowledge is not at all well represented in this country. Unlike West Germany, where every medical school has a department in the field, this country is not that fortunate. The departments are few and when the research is completed, there is little opportunity to publish it. With respect to translations, Dr. Jarcho noted that Americans who know foreign languages are a rarity, and this necessitates a foreign translation program. Some very important works have never been translated into English. Dr. Jarcho strongly recommended that the Board continue support of these two programs. They add to the credit of the United States, and they assist scholars in this country and elsewhere. Dr. Jarcho emphasized that the United States provides services and designs machines which operate at great speed, it manufactures bibliographies and other works of reference, but to what fundamental purpose? It is, of course, to save lives, to prevent illness, to improve health, to increase knowledge, to generate and develop ideas. Dr. Jarcho concluded that the Library is not a machine shop, it is not owned by machines, it is for man, his welfare, his ideas, and he hoped that during the present transition, this priority will be kept clearly in mind.

Dr. DeBaKey commended Dr. Brand on a very successfully administered program, despite its problems and difficulties, noting that it was obvious that the projects received very careful, preliminary screening to assure quality and utility. Without the P.L. 480 Program, scientists in America would not have access to certain biomedical information unless they had a qualified translator available, a costly enterprise. Dr. DeBaKey noted that she was happy to see that very few scientific journals are supported and those that are are carefully scrutinized for real need. There is little need for additional, gratuitous journal publications.

Dr. Cummings recalled the historical perspective that led to the program. There is a critical link between the P.L. 480 agricultural funds and their utilization for health purposes. Senator Humphrey at the time introduced the idea that some of these funds be utilized for translations and dissemination of research results. Two other important individuals, Senator Lister Hill and Congressman John Fogarty, created the more basic legislation that led to the International Health Research Act of 1960, which made possible for the first time the use of U.S. funds, not only P.L. 480, but U.S. dollars, for the beginning of health research abroad. He concluded by stating that the Library's utilization of these funds can be compared favorably with any program of this type. It was Dr. Brand, Scott Adams, and Mary Corning, who during the years have administered this program admirably. Dr. Cummings emphasized that, before the rest of the funds are eroded by inflation, the Board think of additional creative ways to make use of these foreign currencies to continue this essential program.

#### XIV. NEW BUSINESS

Expressions of appreciation for Dr. Cummings' efforts and contributions as Director of the National Library of Medicine were presented by the Regents in the form of a resolution (Attachment D). Dr. Mayer noted that he would pursue with the Director of NIH and, if need be, the Assistant Secretary of Health, the issue of transition of leadership.

#### XV. ADJOURNMENT

The meeting was adjourned at 11:40 a.m., Friday May 27, 1983.

\* \* \* \* \*

Wednesday, May 25, 1983, 1:00 to 2:40 p.m.  
(Subcommittee on Pricing of NLM Services  
List of Attendees under Attachment F)

Wednesday, May 25, 1983, 2:00 to 4:30 p.m.  
(EP Subcommittee--List of Attendees under Attachment G)

Wednesday, May 25, 1983, 2:50 to 4:00 p.m.  
(Lister Hill Center Subcommittee--List  
of Attendees under Attachment H)

Thursday, May 26, 1983, 9:00 a.m. to 4:30 p.m.  
Friday, May 27, 1983, 9:00 a.m. to 11:40 a.m.

\* \* \* \* \*

ACTIONS TAKEN BY THE BOARD OF REGENTS

1. The Board thanked outgoing members Drs. Townsend and Huth and retiring Vice Admiral J. William Cox for their contributions to the Library.
2. The Board approved recommendations made by the Subcommittee on Pricing of NLM Services with minor changes (Attachment B).
3. The Chairman appointed Dr. DeBakey, Ms. Echelman, and Dr. Davies to a taskforce to develop a position paper on problems to society associated with full cost recovery.
4. The Board concurred with recommendations of the Extramural Programs Subcommittee. Grant applications recommended for approval are listed in the summary actions (Attachment C).
5. The Board passed a resolution regarding Dr. Cummings' forthcoming retirement (Attachment D).
6. The Board voted unanimously to have Dr. Mayer write to the NIH Director to offer the Board's assistance in the search for a new NLM Director (Attachment E).

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

Martin M. Cummings 7/15/83  
Martin M. Cummings, M.D. (Date)  
Executive Secretary

William D. Mayer 8/3/83  
William D. Mayer, M.D. (Date)  
Chairman

BOARD OF REGENTS OF THE NATIONAL LIBRARY OF MEDICINECHAIRMAN

MAYER, William D., M.D. (8/3/84)  
 President  
 Eastern Virginia Medical Authority  
 P. O. Box 1980  
 Norfolk, VA 23501 804-446-5201

BOWLES, L. Thompson, M.D., Ph.D. (8/3/86)  
 Dean for Academic Affairs and  
 Professor of Surgery  
 The George Washington University  
 Medical Center  
 2300 I Street, N.W. #713  
 Washington, DC 20037 202-676-3501

HUTH, Edward J., M.D. (8/3/83)  
 Editor  
 Annals of Internal Medicine  
 American College of Physicians  
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CRUZAT, Gwendolyn S., Ph.D. (8/3/84)  
 Professor of Library Science  
 School of Library Science  
 The University of Michigan  
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MOLINE, David O., D.D.S. (8/3/86)  
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DeBAKEY, Lois E., Ph.D. (8/3/86)  
 Professor of Scientific Communications  
 Baylor College of Medicine  
 1200 Moursund Street  
 Houston, TX 77030 713-790-3185

MOLNAR, Charles E., Sc.D. (8/3/84)  
 Director, Computer Systems Laboratory  
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 St. Louis, MO 63110 314-454-3969

ECHELMAN, Shirley (8/3/85)  
 Director  
 Association of Research Libraries  
 1527 New Hampshire Avenue, N.W.  
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TOWNSEND, John L., M.D. (8/3/83)  
 Chairman  
 Department of Medicine  
 Howard University  
 College of Medicine  
 2041 Georgia Avenue, N.W.  
 Washington, DC 20060 202-745-6620

EDWARDS, Charles C., M.D. (8/3/85)  
 President  
 Scripps Clinic and Research Foundation  
 Keeney Park  
 10666 N. Torrey Pines Road  
 La Jolla, CA 92037 619-455-1187

EX OFFICIO MEMBERSPrimary

COX, J. William, Vice Adm., MC, USN  
 Surgeon General  
 Office of the Chief of Naval Operations (OP-093)  
 Department of the Navy  
 Washington, DC 20350 202-697-6201

Alternate

MOCK, Charles R., Capt., MC, USN  
 Commanding Officer  
 Naval Health Sciences Education  
 and Training Command  
 Naval Medical Command-National  
 Capital Region - T17  
 Bethesda, MD 20814 301-295-0203

Board of Regents' Roster (continued)

BOORSTIN, Daniel J., Litt.D.  
Librarian of Congress  
Library of Congress  
10 First Street, S.E.  
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WELSH, William J.  
Deputy Librarian of Congress  
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James Madison Memorial Bldg. Room 608  
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Washington, DC 20540 202-287-5215

CUSTIS, Donald L., M.D. (10)  
Chief Medical Director  
Veterans Administration  
Department of Medicine and Surgery  
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Washington, DC 20420 202-389-2596

HAHN, James M. (142)  
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Veterans Administration  
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Deputy Assistant Secretary for Health  
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ABDELLAH, Faye G., Ed.D., Sc.D.  
Deputy Surgeon General, and  
Chief Nurse Officer, PHS  
Parklawn Building, Room 18-67  
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BRALLIAR, Max B., Lt. Gen., USAF, MC  
Surgeon General  
Department of the Air Force  
Bolling Air Force Base  
Washington, DC 20332 202-767-4343

CHONG, Vernon, Brig. Gen., USAF, MC  
Commander  
Malcolm Grow Medical Center  
Andrews Air Force Base, MD 20331  
301-981-3001

MITTEMEYER, Bernhard, Lt. Gen., MC, USA  
The Surgeon General  
Department of the Army  
Washington, DC 20310 202-697-1295

HASTINGS, James E., Col., MC, USA  
Chief, Graduate Medical Education Branch  
Education and Training Division  
U.S. Army Medical Department  
Personnel Support Agency  
Washington, DC 20314 202-693-5455

EXECUTIVE SECRETARY

CUMMINGS, Martin M., M.D.  
Director  
National Library of Medicine  
Bethesda, MD 20209 301-496-6221



RECOMMENDATIONS  
OF THE  
SUBCOMMITTEE ON PRICING OF NLM SERVICES

1. Should NLM general price structure for online and tape charges remain unchanged?

The Subcommittee recommends that the Board reaffirm its current policy that NLM's prices for online services should be structured to recover the full cost to access the system. Since NLM is recovering more than 100% of full cost for creating and providing MEDLARS computer tapes, the Subcommittee recommends that NLM monitor closely the revenues and reduce the use fees if this trend continues. At this time it does not recommend any changes in the pricing structure.

2. Should NLM convert most database licensing fees to a minimum annual fee and use charge?

Based on successful experience, the Subcommittee recommends that other databases, as determined by NLM, should be converted from a fixed fee licensing arrangement to a minimum annual fee and use charge system.

3. Should NLM provide reduced vendor use fee for nonprime time end user oriented access?

The Subcommittee recommends that the Library reduce its tape use fees in nonprime time in order to encourage end user access. The exact fee should be set by NLM.

4. Should NLM proceed to establish differential pricing for health vs. nonhealth related users?

Although the Subcommittee agrees with the GAO study in principle, it recommends against establishing differential pricing for health and nonhealth related users until reliable data is available and the issue is resubmitted to the Board.

5. Should NLM institute a special charge system for specialized data banks such as TDB?

The Subcommittee recommends that specialized data banks identified by NLM should have their charges increased to recover the cost of maintaining the files. The Subcommittee believes that such data banks, which are non-bibliographic in nature and primarily utilized by industry and government, should be priced separately from the regular MEDLARS bibliographic files. The costs of creating these files should continue to be borne by other Federal agencies.

6. Should NLM convert to a new pricing algorithm?

The Subcommittee recommends that NLM convert to a new charging algorithm based primarily on factors such as the number of characters transmitted or transactions performed. The Subcommittee recommends that this change from the current connect hour charge be accomplished in stages to allow for user accommodation.

7. Should NLM finalize a policy for subsets of NLM databases?

8. Should NLM explore with professional societies the creation of subject oriented subsets?

The Subcommittee recommends that NLM continue to develop a subset policy to adequately meet the needs of individual users and service organizations. It should also explore the desirability of collaboration with professional societies in the development of special subsets. Both of these policy issues should be brought to the Board in October.

9. Should NLM implement a charge for interlibrary loans processed by NLM?

The Subcommittee recommends that NLM institute charges for interlibrary loans filled at NLM effective October 1983.

NOTE: The Board acted as follows on the above recommendations:

1, 2, 3 - approved

4 - approved as reworded: The Subcommittee recommends against establishing differential pricing for health and nonhealth related users at this time; the results of the questionnaire, when available, will be reviewed by the Board at a subsequent meeting.

5, 6, 7, 8, 9 - approved

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

COUNCIL DATE: MAY 1983

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
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2 R01 LM 03116-06	TECHNICAL EVALUATION OF THE CLINICAL LITERATURE	126,120
		136,388
		147,411
		159,289
		172,042

2 R01 LM 03462-04	THE HISTORICAL DEVELOPMENT OF NEUROPHYSIOLOGY	17,403
		18,133
		18,900

2 R01 LM 03910-02		7,930
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MEDICAL THERAPEUTICS IN AMERICA, 1820-1885

3 R01 LM 03933-02S1		20,425
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PROCESSING APPLICATIONS OF MEDICAL LANGUAGE

1 R01 LM 04043-01A1		12,220
		8,025

THE EAR AND HEARING IN DIVING AND SUBAQUATIC MEDICINE

1 R01 LM 04065-01		60,430
		67,731

BOOLEAN INFORMATION RETRIEVAL FOR BIOMEDICAL USE

1 R01 LM 04093-01		22,763
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NATIONAL INSTITUTE OF HEALTH: THE EARLY YEARS

1 R01 LM 04095-01		11,535
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SOCIAL HYGIENE MOVEMENT IN AMERICA, 1900-1921

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 1983

INSTITUTE/DIVISION:	APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
NATIONAL LIBRARY OF MEDICINE	1 R01 LM 04097-01	SET COVER MODEL FOR DIAGNOSTIC DECISION	01 94,288 02 67,731 03 72,028
	1 R01 LM 04100-01	HOSPITAL ORGANIZATION RESEARCH DISCREPANCIES	01 23,855 02 28,724 03 13,135
	1 R01 LM 04106-01	ATLAS OF HUMAN BIOLOGICAL VARIATION	01 28,992
	1 R01 LM 04108-01	HEALTH, MEDICINE AND RELIGIOUS VALUES IN ANTIQUITY	01 15,906 02 16,791
	1 R01 LM 04122-01	COMPUTER ACQUISITION/REPRESENTATION OF MEDICAL KNOWLEDGE	01 66,483 02 60,989 03 67,088
	1 R01 LM 04123-01	UP IN SMOKE? THE EFFECTS OF THE ANTISMOKING CAMPAIGN	01 28,256 02 9,252
	1 R01 LM 04125-01	EXPERT CAUSAL MODELS IN THE MEDICAL KNOWLEDGE BASE	01 155,291 02 84,577 03 91,821
	1 R01 LM 04127-01	DUAL: MH	01 21,550 02 21,550 03 21,750
	1 R01 LM 04129-01	HISTORICAL FOUNDATIONS OF MODERN PSYCHIATRY	
	MONOGRAPH: PATHOPHYSIOLOGY OF PULMONARY EDEMA		01 35,763

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 1983

INSTITUTE/DIVISION:	APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
NATIONAL LIBRARY OF MEDICINE	1 G08 LM 04087-01	THE HISTORY OF MEDICINE COLLECTION	01 69,233 02 95,400 03 110,871
	1 G08 LM 04109-01	GEORGIA INTERACTIVE NETWORK--GAIN--FOR MEDICAL INFORMATION	01 176,189 02 147,465 03 151,512
	1 G08 LM 04130-01	CIRCUIT-RIDER LIBRARY INFORMATION PROGRAM <sup>1</sup>	01 54,649 02 27,288

<sup>1/</sup> 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 1983

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	DUAL:	SHORT TITLE	AMOUNTS RECOMMENDED
1 R01 LM 04132-01	HS	PATTERNS, PARTIAL KNOWLEDGE AND TEST INTERPRETATION	01 16,815 02 18,510 03 20,377
1 R01 LM 04135-01	HS	VALIDITY OF STRUCTURED CASES TO STUDY CLINICAL JUDGMENT	01 95,270 02 101,979 03 109,619
1R01 LM 04136-01	CA	THERAPY-PLANNING STRATEGIES FOR CONSULTATION BY COMPUTER	01 60,517 02 72,140 03 79,194

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

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
1 G07 LM 04024-01A1	SINGLE-INSTITUTION GRANT	4,750
1 G07 LM 04070-01	CONSORTIUM IMPROVEMENT GRANT	15,297
1 G07 LM 04104-01	SINGLE-INSTITUTION GRANT	4,000
1 G07 LM 04111-01	SINGLE-INSTITUTION GRANT	4,000
1 G07 LM 04117-01	SINGLE-INSTITUTION GRANT	4,000
1 G07 LM 04118-01	CONSORTIUM IMPROVEMENT GRANT	28,106
1 G07 LM 04124-01	CONSORTIUM IMPROVEMENT GRANT	68,000
1 G07 LM 04134-01	SINGLE-INSTITUTION GRANT	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: MAY 1983

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
1 K04 L11 00080-01		
	PATTERNS, PARTIAL KNOWLEDGE AND TEST INTERPRETATION	
		01 36,150
		02 36,300
		03 36,450
		04 36,600
		05 36,700

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



Resolution of Appreciation for

Dr. Martin M. Cummings

Adopted by the

Board of Regents of the National Library of Medicine

on May 26, 1983

WHEREAS Martin M. Cummings, M.D., has unique talents of creativity, scholarship and management which have established the National Library of Medicine as an institution renowned throughout the world; and

WHEREAS Martin M. Cummings, M.D., has simultaneously enlarged the legislative mandate for the National Library of Medicine, increased its human and fiscal resources, and broadened the functions of the National Library of Medicine to serve and enrich biomedical research, education and health communities; and

WHEREAS Martin M. Cummings, M.D., has given totally of himself professionally and personally in his dedication to the National Library of Medicine and its mission; and

WHEREAS Martin M. Cummings, M.D., has throughout his career been a humanitarian sensitive to the needs of the individual and society; therefore

BE IT RESOLVED that the Board of Regents acknowledges on behalf of the United States medical and health communities a great debt of gratitude for the leadership of Martin M. Cummings, M.D., in his stewardship of the National Library of Medicine.



## DEPARTMENT OF HEALTH &amp; HUMAN SERVICES

Public Health Service

National Institutes of Health  
National Library of Medicine  
Bethesda MD 20209

May 27, 1983

James B. Wyngaarden, M.D.  
Director  
National Institutes of Health  
Bethesda, Maryland

Dear Jim:

It was with great sorrow that the Board of Regents of the National Library of Medicine at its 73rd Meeting on May 26, 1983, learned of the intention of Dr. Martin M. Cummings to retire from the Directorship of the NLM on September 30, 1983. The Board of Regents has been privileged to observe the truly remarkable progress of the Library under the twenty-year span of superb leadership provided by Dr. Cummings. Very few major Federal agencies have been as fortunate as the NLM to enjoy a period of two decades of continuous stewardship with a leader of Dr. Cummings' quality.

As you know, the Board of Regents takes quite seriously its responsibilities for this institution which functions as the ultimate resource to this nation and the world of the biomedical knowledge and information base. The Board, at its meeting on May 26, by unanimous vote expressed its desire for intimate and constructive involvement in the process of seeking and selecting a replacement for Dr. Cummings as the Director of the National Library of Medicine. They have asked me to inform you of this action and have requested that I function on their behalf in arranging with you the appropriate mechanisms by which their desires might be accomplished.

I would, therefore, appreciate the opportunity of discussing this matter with you in order that I might inform the Board of the manner by which their involvement in this most important task might best be accomplished. Please do not hesitate to contact me either at my office (804)446-5200 or my home (804) 422-2316.

With best personal regards.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Bill", written in dark ink.

William D. Mayer, M.D.  
Chairman, Board of Regents  
National Library of Medicine

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

EXTRAMURAL PROGRAMS SUBCOMMITTEE MEETING

May 25, 1983

A T T E N D E E S

Subcommittee Members Present:

Dr. L. Thompson Bowles  
Brig. Gen. Vernon Chong  
Dr. Gwendolyn S. Cruzat  
Dr. Lois E. DeBakey  
Dr. John L. Townsend  
Dr. Nicholas E. Davies (Consultant)  
Dr. Saul Jarcho (Consultant)

NLM Staff Present:

Dr. William G. Cooper, Acting Associate Director, EP  
Mr. Arthur J. Broering, Deputy Associate Director, EP  
Mrs. Helen Bennison, Grants Management Specialist, EP  
Dr. Jeanne L. Brand, Chief, International Programs Branch, EP  
Mr. Peter A. Clepper, Program Officer, EP  
Mrs. Karin K. Colton, Committee Management Assistant  
Dr. Roger W. Dahlen, Chief, Biomedical Information Support Branch, EP  
Mrs. Frances E. Johnson, Program Officer, EP  
Mrs. M. Kathleen Nichols, Grants Management Specialist, EP  
Mrs. Marguerite L. Pusey, Administrative Officer, EP  
Mr. Richard T. West, Chief, Office of Program Planning and Evaluation, EP  
Mr. Randall Worthington, Program Officer, EP

B O A R D O F R E G E N T S  
SUBCOMMITTEE ON PRICING OF NLM SERVICES

May 25, 1983

A T T E N D E E S

Subcommittee Members Present:

Dr. Eloise E. Clark  
Mrs. Shirley Echelman  
Dr. Charles E. Molnar

Unable to Attend:

Dr. Edward J. Huth

NLM Staff Present:

Mr. Kent A. Smith, Deputy Director  
Mr. John Anderson, Director, Information Systems, OD  
Ms. Lois Ann Colaianni, Acting Associate Director for Library Operations, LO  
Mr. David Kenton, Staff Assistant, Office of Computer and Communications Systems  
Dr. Henry M. Kissman, Associate Director for Specialized Information Services  
Mr. Sheldon Kotzin, Chief, Bibliographic Services Division, LO  
Mr. Mark J. Rotariu, Chief, Office of Financial Management, OD  
Mrs. Brickie LeRoy, Secretary, OD

Members of the Public Present:

Ms. Peggy Miller, Legal Assistant, Kaye, Scholar, Fierman, Hays & Handler

AGENDA  
BOARD OF REGENTS  
SUBCOMMITTEE ON PRICING

May 25, 1983

- |       |   |           |  |
|-------|---|-----------|--|
| I.    | CALL TO ORDER AND INTRODUCTORY<br>REMARKS                         | 1:00-1:05 | Shirley Echelman                                     |
| II.   | REVIEW OF ISSUES  | 1:05-1:10 | Kent Smith   |
| III.  | MEDLARS SERVICES COST ANALYSIS<br>SUMMARY - FY 1982               | 1:10-1:20 | Mark Rotariu   |
|       | Discussion of Related Issues                                      | 1:20-1:35 | Kent Smith<br>Subcommittee Members                   |
|       | (a) Review of current MEDLARS<br>pricing structure                |           |  |
|       | (b) Conversion of other NLM data<br>bases to use fee basis        |           |  |
|       | (c) Fees for nonprime time end<br>user oriented access            |           |  |
|       | (d) Differential pricing for health<br>vs nonhealth related users |           |  |
| IV.   | PRICING OF SPECIALIZED DATA BANKS                                 | 1:35-1:45 | Henry Kissman<br>Subcommittee Members                |
| V.    | PROPOSED NEW PRICING ALGORITHMS                                   | 1:45-2:00 | John Anderson<br>Dave Kenton<br>Subcommittee Members |
| VI.   | PROPOSED POLICY FOR SUBSETS OF<br>THE MEDLINE DATABASE            | 2:00-2:15 | Shirley Echelman<br>Subcommittee Members             |
|       | (a) Review draft policy statement                                 |           |  |
|       | (b) Involvement of professional<br>societies in subsets           |           |  |
| VII.  | PROPOSED INTERLIBRARY LOAN CHARGES                                | 2:15-2:25 | Lois Ann Colaianni<br>Subcommittee Members           |
| VIII. | SUMMARY OF CONCLUSIONS AND<br>RECOMMENDATIONS                     | 2:25-2:30 | Shirley Echelman                                     |

NATIONAL LIBRARY OF MEDICINE  
BOARD OF REGENTS  
SUBCOMMITTEE ON PRICING OF NLM SERVICES  
Minutes of Meeting  
May 25, 1983  
1:30 p.m.

Subcommittee members present: Dr. Clark, Mrs. Echelman, Dr. Molnar  
Unable to attend: Dr. Huth

NLM staff present: Mr. Smith, Dr. Kissman, Mrs. Colaianni, Mr. Anderson,  
Mr. Rotariu, Mr. Kotzin, Mr. Kenton, Mrs. LeRoy

Member of the public present: Ms. Peggy Miller, Attorney, Kaye, Scholer,  
Fierman, Hayes & Handler

Mrs. Echelman called the Subcommittee to order and reviewed the agenda (attached). Mr. Smith outlined the nine issues to be discussed at the meeting.

MEDLARS Services Cost Analysis--Summary and Related Issues

Mr. Rotariu presented summaries of the MEDLARS network cost analysis for FY 1981 and 1982. With the reinstatement on October 1, 1982 of charges for services such as stored searches, minimum billing, etc., and an increase in offline page charges from \$0.15 to \$0.18, based on actual use in FY 1982 NLM recovered slightly in excess of 100 percent of access costs. The consensus of the Subcommittee was that current charges could be sustained for FY 1983 for bibliographic databases such as MEDLINE and derivative files. It was reported that NLM is recovering over 100 percent of the full cost of creating and providing MEDLARS computer tapes for foreign centers and domestic commercial users.

In January 1982 NLM shifted from a flat charge for licensing MEDLINE tapes to a minimum charge and use fee arrangement. This experiment has been successful and the Subcommittee believes it should be extended to other databases--specific databases to be determined by staff. A brief discussion concerning merging minimum fees for multiple databases ensued. In other words, the use fee would apply against a combined minimum for a set of databases rather than a separate minimum for each database. Although the Subcommittee did not act on this item, the general consensus was that merging would facilitate the widest distribution of medical information, which would be in the public interest. Specific decisions were left to the discretion of NLM staff.

The Subcommittee reviewed the NLM prime and nonprime time charges and agreed that these provided a reasonable opportunity for low cost off-peak use. The Subcommittee concurred in the staff proposal to provide a nominal reduction in user charges from \$4/hour to \$3/hour for MEDLINE files for vendor services such as BRS' After Dark and Dialog's Knowledge Index that are targeted toward end users using personal computers after business hours. This reduction would apply to all tape licensees.

Mr. Smith reported on the efforts of the Library to conform to the GAO recommendation for a differential charge for health and nonhealth-related use. A very short survey questionnaire has been developed and is going through clearance procedures.

The Subcommittee reviewed the need for differential pricing for MEDLINE and other bibliographic databases. The consensus was that there was no reason to establish differential charges at this time, as the survey data are necessary for a reasonable decision.

#### Pricing of Specialized Data Banks

The Subcommittee reviewed a proposal by Dr. Kissman to establish online charges for the Toxicology Data Bank (TDB) at \$75 per connect hour and \$0.60 per page for offline hits. Tape vendors would be charged an annual subscription minimum of \$10,000 with a base charge of \$30 per connect hour and \$0.30 per offline hit. Increased charges would also be considered for other data banks such as RTECS.

Dr. Kissman pointed out that data banks such as TDB were extremely costly to generate and maintain. The cost of TDB in FY 1982 was about \$1 million, of which \$125,000-\$150,000 was to provide access for 1800-1900 hours. Unless additional resources for continuing to build the file were made available from sources such as the EPA Superfund, it would not be possible to continue to enhance or update the file; only maintenance to the existing records could be provided. This would result in the file becoming out-of-date in a short time.

In response to Subcommittee concern over the threat of TDB becoming out-of-date, it was pointed out that although it was an important activity, it did not represent a primary core responsibility of NLM. Responsibility should be shared with other agencies. The Subcommittee concurred in the need to obtain outside support for the building of TDB and agreed that the principle of charging higher rates for data banks was appropriate, but left to staff the determination of specific rates.

#### New Pricing Algorithm

Mr. Anderson and Mr. Kenton reviewed current NLM charging algorithms, which are based on connect hour and offprint charges. Although this type of charge is common, it does not reflect real cost and value of use of the system. High connect hour charges discourage interactive searching. When the system was first introduced, the use and the terminals used to access the system were relatively homogenous; therefore, a simple charging algorithm based on connect time was appropriate and did not discriminate against particular users. As the use and the kinds of terminals have become more varied, a charging algorithm representative of the actual load on the system is more appropriate. The Subcommittee pointed out that the more sophisticated users optimize their use of the system. This situation can result in the heavier and more experienced users in effect being subsidized by the occasional and less efficient users.

NLM is modifying its software to enable it to measure actual use of system resources. A number of parameters can be measured, such as the number of transactions or citations or characters generated online and offline. Using the modified software, NLM will collect data using a number of algorithms and compare proposed charges with those currently incurred. The specific algorithm chosen should yield as a total approximately the same revenue as the current system. The modifications will also enable users to obtain, for any algorithm selected, an accounting of online costs at any time during a session. The Subcommittee thought the proposed charging method was appropriate and in keeping

with charges in the industry. It felt, however, that NLM should institute this new arrangement carefully, keeping in mind user concerns and giving users time and information needed to adjust their usage to the new charging algorithm.

#### MEDLINE Subsets

Mr. Smith pointed out that the new algorithm would be particularly useful in creating subsets of files generated from the MEDLINE files and used locally for online searching. Database creators, including NLM, have received numerous requests to develop policies for subset distribution. Although the issue needs further study by NLM, the Subcommittee believes a flexible policy is needed that will serve individual users as well as service organizations.

The Library staff has also considered the desirability of developing subject-oriented subsets in cooperation with organizations such as professional societies. Thus, one might consider the feasibility of converting some recurring bibliographies to online databases. The whole issue of subsets needs more study by NLM and the Subcommittee before the October Board meeting.

#### Interlibrary Loan Charges

Mrs. Colaianni presented a proposal to initiate charges for interlibrary loans filled by NLM. The proposed charges were within the guidelines established for the RML network. Any excess revenues over delivery costs would be returned to the Treasury. The Subcommittee saw no problems with the proposal.

\* \* \* \*

Mrs. Echelman summarized the actions of the Subcommittee and the recommendations to be presented to the full Board.

Attachment



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

LISTER HILL CENTER SUBCOMMITTEE

May 25, 1983

A T T E N D E E S

Subcommittee Members Present:

Dr. Faye G. Abdellah  
Dr. Charles C. Edwards  
Dr. David O. Moline  
Dr. Charles E. Molnar

Unable to Attend:

Vice Adm. J. William Cox  
Dr. Edward J. Huth

NLM Staff Present:

Dr. Richard B. Friedman, Director, Lister Hill National Center for Biomedical Communications  
Dr. Harold M. Schoolman, Deputy Director for Research and Education, OD  
Mr. Jules Aronson, Acting Chief, Computer Science Branch, LHCBC  
Dr. Charles Bridgman, Acting Chief, Audiovisual Program Development Branch, LHCBC  
Dr. Donald Buckner, Special Assistant for Health Professions Education, LHCBC  
Ms. Sandra Costanzo, Administrative Officer, LHCBC  
Mr. B. Earl Henderson, Acting Deputy Director, LHCBC  
Mr. Charles E. Herbert, Assistant Director for Program Planning and Coordination, LHCBC  
Mr. James Main, Electronic Engineer, LHCBC  
Dr. A. Donald Merritt, Chief, Health Professions Applications Branch, LHCBC  
Dr. Warren Seibert, Deputy Chief, Health Professions Applications Branch, LHCBC  
Dr. George R. Thoma, Acting Chief, Communications Engineering Branch, LHCBC  
Dr. Michael Weisberg, Acting Chief, Training and Consultation Branch, LHCBC  
Dr. James Woods, Special Expert, LHCBC

National Library of Medicine Board of Regents  
Lister Hill Center Subcommittee  
Minutes of Meeting  
May 25, 1983

Present: Members of the Lister Hill Center Subcommittee of the Board of Regents: Dr. Abdellah, Dr. Edwards, Dr. Molnar, Dr. Moline

NLM Staff: Dr. Schoolman, Dr. Friedman, Mr. Henderson, Dr. Merritt, Dr. Buckner, Dr. Weisberg, Dr. Thoma, Dr. Bridgman, Dr. Woods, Mr. Aronson, Ms. Costanzo, Mr. Herbert, Mr. Main.

Introduction

Dr. Edwards welcomed the subcommittee and staff and reminded both that the last scheduled meeting had been cancelled because of his illness. He noted that he had had discussions earlier that day with Dr. Friedman and was excited by the program activities which had been outlined. He then asked Dr. Friedman, the New Director of the Lister Hill Center to talk to the subcommittee on Program Planning and Implementation.

Program Planning and Implementation

Dr. Friedman briefly outlined the new organizational structure of the Lister Hill National Center for Biomedical Communications and the management implications of merging the National Medical Audiovisual Center with Lister Hill National Center for Biomedical Communications. Matrix management will be introduced in a form similar to that used in academic centers where staff participate in departmental activities for some purposes and in research projects among different disciplines and departments for others.

Dr. Friedman reviewed ongoing personnel strength and recruitment activities as well as budget and facilities available. He particularly noted that NLM management had assured him of additional laboratory space on the ninth floor as well as needed renovations on B1 and B2 levels necessary for supporting new program initiatives.

Major program initiatives for the LHNCBC will come from the following new program areas: I. Computer Based Educational Projects; II. National Learning Resources Demonstration Center; III. Visual Data Bases; IV. Bibliometrics; V. Man/Machine Interacting; VI. Decision Analysis; VII. Improved Access to Literature.

### Subcommittee Discussion

In response to Dr. Friedman's request for advice in determining LHNCBC priorities, Dr. Moline stressed the importance of bibliometrics, since in his experience, dentists and other health professionals did not use the literature and other library resources extensively. Dr. Abdellah endorsed bibliometrics and other research areas which would expand the area of assistance to the nursing, dental and other associated health professions.

Dr. Edwards also supported bibliometrics research. In addition, he strongly supported the proposed National Learning Resources Demonstration Center as meeting a major need of educators and others for comparative information and exposure to new education and information technologies.

Dr. Molnar asked about the respective roles of the Board of Regents and the Board of Scientific Counselors. Dr. Friedman noted that the Board of Regents would be of particular help in identifying priority areas for research. The Board of Scientific Counselors as peers in research, would advise on the nature and quality of the research.

The Regents also expressed optimism that Dr. Friedman's program plans showed great promise of successfully targetted research and congratulated him on his presentation.

### Walk-through Demonstration

Dr. Moline expressed interest in participating in the optional walk-through of the facilities.

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

A G E N D A

74th Meeting of the

BOARD OF REGENTS

9:00 a.m., October 13-14, 1983

NMAC CLASSROOM  
NLM Lister Hill Center Building  
Level B-1

MEETING OPEN: All day on October 13, and from 9:00 to 10:15 a.m. and from approximately 11:15 to adjournment on October 14.  
MEETING CLOSED: From 10:15 to approximately 11:15 a.m. on October 14 for the review of grant applications.

- I. CALL TO ORDER AND INTRODUCTORY REMARKS Dr. William D. Mayer
- II. REMARKS BY THE DEPUTY ASSISTANT SECRETARY FOR HEALTH AND SURGEON GENERAL, PHS Dr. C. Everett Koop
- III. REMARKS BY THE DEPUTY DIRECTOR FOR EXTRAMURAL RESEARCH & TRAINING, NIH Dr. William F. Raub
- IV. CONSIDERATION OF MAY MINUTES TAB I Dr. William D. Mayer  
(Agenda Book)
- V. DATES OF FUTURE MEETINGS

Winter Meeting: January 26-27, 1984 (Th-F) - CONFIRMED  
Spring Meeting: May 24-25 (Th-F), 1984 - CONFIRMED  
Fall Meeting Oct. 11-12 OR Oct. 18-19 (Th-F), 1984 - PROPOSED

PLEASE NOTE: Institute of Medicine - Annual Meeting  
October 10-11, 1984 - Washington, D.C.  
Association of Academic Health Centers (AAHC)  
Annual Meeting - October 10-13, 1984 - Key West  
Association of Research Libraries - Semi-annual  
Meeting - October 24-25, 1984 - Washington, D.C.  
Association of American Medical Colleges  
Annual Meeting - October 20-25, 1984 - Chicago  
American College of Surgeons - Clinical  
Congress, October 21-26, 1984 - San Francisco  
American Society for Information Science -  
Annual Meeting - October 21-26, 1984 - Philadelphia

COFFEE BREAK

VI.	REPORT OF THE ACTING DIRECTOR, NLM Discussion	<u>TAB II</u>	Dr. Harold M. Schoolman Board Members
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VII.	POSITION PAPER ON COST RECOVERY Discussion	<u>TAB III</u>	Mrs. Shirley Echelman Dr. Nicholas E. Davies Dr. Lois E. DeBakey Board Members
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LUNCHEON CATERED IN CLUSTER CONFERENCE ROOM  
(Showing of Film "John Shaw Billings:  
19th Century Medical Genius")

VIII.	REPORT OF AD HOC GROUP ON INTELLECTUAL PROPERTY RIGHTS Discussion	<u>TAB IV</u>	Dr. Robert M. Hayes Dr. Harold M. Schoolman Board Members
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IX.	PRICING POLICY FOR SUBSETS OF NLM DATABASES	<u>TAB V</u>	Mr. Kent A. Smith
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COFFEE BREAK

Discussion of Subset Pricing Policies	Mrs. Shirley Echelman and Board Members
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X.	REPORT ON BOARD OF SCIENTIFIC COUNSELORS' SEPTEMBER MEETING Discussion	<u>TAB VI</u>	Dr. Richard B. Friedman Dr. Charles E. Molnar, Discussant Board Members
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R E C E S S

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DINNER. . . . .	Bethesda Naval Officers' Club
Cocktails (Cash Bar). . . . .	7:00 p.m. "Patio Room"
Dinner. . . . .	8:00 p.m. "Terrace Room"

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R E C O N V E N E : Friday, October 14, 1983, 9:00 a.m.

XI.	MEDLARS III UPDATE	<u>TAB VII</u>	Mr. John E. Anderson Mr. Russell L. Fenwick, Discussant
	Discussion		Board Members

COFFEE BREAK

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MEETING CLOSED FOR THE REVIEW OF GRANT APPLICATIONS, OCTOBER 14, 10:15-11:15 A.M.

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XII.	SPECIAL APPLICATIONS	(Gray Book)	
	A. Publications	<u>TAB I</u>	Dr. Jeanne L. Brand
	B. Resource	<u>TAB II</u>	Dr. Roger W. Dahlen

XIII.	SUMMARY STATEMENTS		
	A. Publications	<u>TAB III</u>	Dr. Jeanne L. Brand
	B. Research	<u>TAB IV</u>	Dr. Roger W. Dahlen
	C. Resource	<u>TAB V</u>	" " " "
	D. Improvement	<u>TAB VI</u>	" " " "

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MEETING OPEN FROM 11:15 A.M. TO ADJOURNMENT - OCTOBER 14, 1983

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XIV.	REPORT OF THE ACTING ASSOCIATE DIRECTOR FOR EXTRAMURAL PROGRAMS	<u>TAB VIII</u>	Dr. William G. Cooper EP Subcommittee, Discussants
	A. EP Budget and Funding Plans		
	Discussion		Board Members

XV.	ADJOURNMENT	12:00	Dr. William D. Mayer
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DEPARTMENT OF HEALTH AND HUMAN SERVICES

NATIONAL INSTITUTES OF HEALTH  
NATIONAL LIBRARY OF MEDICINE

BOARD OF REGENTS  
MINUTES OF THE 74TH MEETING

OCTOBER 13-14, 1983

NMAC CLASSROOM  
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 13-14, 1983

The Board of Regents of the National Library of Medicine was convened for its seventy-fourth meeting at 9:00 a.m. on Thursday, October 13, 1983, in the NMAC Classroom of the National Library of Medicine, Bethesda, Maryland. Dr. William D. Mayer, Chairman of the Board of Regents, and President of the Eastern Virginia Medical Authority, presided. In accordance with P.L. 92-463 and the Determination of the Director, NIH, and as announced in the Federal Register on September 9, 1983, the meeting was open to the public from 9:00 a.m. to 4:30 p.m. on October 13 and from 9:00 to 10:10 a.m. and from 10:35 to 11:30 a.m. on October 14. The meeting was closed from 10:10 to 10:35 a.m. on October 14 for the review, discussion, and evaluation of grant applications. A Board roster is enclosed under Attachment "A."

Board members present were:

Dr. L. Thompson Bowles  
Vice Adm. Lewis H. Seaton (Ex officio)  
Dr. Lois E. DeBakey  
Mrs. Shirley Echelman (October 13)  
Dr. Charles C. Edwards  
Dr. C. Everett Koop (Ex officio) (October 13)  
Dr. William D. Mayer  
Dr. David O. Moline  
Dr. Charles E. Molnar  
Dr. Robert Rabin (Ex officio)

Alternates to ex officio members present were:

Dr. Faye G. Abdellah, representing Dr. C. Everett Koop.  
Brig. General Vernon Chong, representing Lt. General Max B. Bralliar.  
Mr. William J. Welsh, representing Dr. Daniel J. Boorstin.

Unable to attend:

Dr. Gwendolyn S. Cruzat  
Mr. James M. Hahn  
Col. James E. Hastings

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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 Libraries Assistance Advisory Board.



National Library of Medicine staff members attending this meeting included:

Dr. Harold M. Schoolman, Acting Director  
Mr. Kent A. Smith, Deputy Director  
Mr. John Anderson, Director, Information Systems, OD  
Mr. Jules Aronson, Acting Chief, Computer Science Branch, LHNCBC  
Mr. Harry D. Bennett, Deputy Director for Operations, OCCS  
Dr. Jeanne Brand, Chief, International Programs Branch, EP  
Dr. Charles Bridgman, Acting Chief, Audiovisual Program Development Branch, LHNCBC  
Mr. Arthur J. Broering, Deputy Associate Director for Extramural Programs  
Dr. Donald Buckner, Special Assistant for Health Professions Education, LHNCBC  
Mr. Kenneth Carney, Executive Officer, OD  
Ms. Lois Ann Colaianni, Acting Associate Director for Library Operations  
Dr. William G. Cooper, Associate Director for Planning and Acting Associate Director for Extramural Programs  
Dr. Roger W. Dahlen, Chief, Biomedical Information Support Branch, EP  
Dr. Richard B. Friedman, Director, Lister Hill National Center for Biomedical Communications  
Mr. B. Earl Henderson, Deputy Director, LHNCBC  
Mr. Charles E. Herbert, Assistant Director for Program Planning and Coordination, LHNCBC  
Dr. Henry M. Kissman, Associate Director for Specialized Information Services  
Mr. Sheldon Kotzin, Chief, Bibliographic Services Division, LO  
Mr. Robert B. Mehnert, Chief, Office of Inquiries and Publications Management, OD  
Dr. A. Donald Merritt, Chief, Health Professions Applications Branch, LHNCBC  
Dr. John Parascondola, Chief, History of Medicine Division, LO  
Mr. Stanley J. Phillips, Deputy Executive Officer, OD  
Dr. Calvin Plimpton, Special Assistant for International Programs, OD  
Mr. Mark J. Rotariu, Chief, Office of Financial Management, OD  
Dr. Elliot R. Siegel, Special Assistant for Operations Research, OD  
Dr. George R. Thoma, Acting Chief, Communications Engineering Branch, LHNCBC  
Dr. Michael Weisberg, Chief, Training and Consultation Branch, LHNCBC  
Mr. Richard T. West, Chief, Office of Program Planning and Evaluation, EP

Others present included:

Dr. William Raub, Deputy Director for Extramural Research and Training, NIH  
Dr. Nicholas E. Davies, Attending Physician, Piedmont Hospital, Atlanta -- Consultant, NLM  
Mr. Russell L. Fenwick, Senior Vice President, Bank of America -- Consultant, NLM  
Ms. Jade Hall, Program Analyst, Division of Financial Management, NIH  
Dr. Robert Hayes, Dean, Graduate School of Library and Information Science, UCLA  
Mr. Joseph H. Howard, Director, National Agricultural Library  
Mr. Douglas Hussey, Division of Legislative Analysis, NIH  
Dr. Doris Merritt, Research Training and Research Resources Officer, NIH  
Ms. Geraldine Pollen, Special Assistant to Director of Financial Management, NIH  
Dr. David Remondini, Executive Secretary, Genetics Study Section, DRG, NIH  
Mrs. Ileen Stewart, Executive Secretary, Special Study Section, DRG, NIH

Members of the public present:

Ms. Carter Blakey, Reporter, "The Blue Sheet"  
Mr. Greg Pearson, Reporter, "The Blue Sheet"  
Mr. Thaddeus Plante, Legal Assistant, Kaye, Scholar, Fierman, Hays & Handler

## I. OPENING REMARKS

Dr. William D. Mayer, Chairman, welcomed the Regents, consultants, and guests to the 74th meeting of the Board of Regents. He noted the presence of two new ex officio members: Vice Admiral Lewis H. Seaton, Surgeon General of the U.S. Navy, and Dr. Robert Rabin, Acting Assistant Director for Biological, Behavioral, and Social Sciences of the National Science Foundation.

The Chairman commented that the absence of Dr. Cummings after nearly 20 years of involvement with the Regents is a significant change for the Board. The ability to anticipate change, however, and to respond to it, was perhaps Dr. Cummings' greatest virtue and the most valuable legacy he leaves the institution. Dr. Mayer said that it is not the often-cited increasing rate of change that is crucial, but whether an institution is prepared to respond intelligently to the change. The Chairman commented that the search committee that will recommend a successor to Dr. Cummings has met twice (Dr. Mayer is a consultant to this committee). He reiterated his concern that the relatively small amount of funds needed to continue NLM's Computers-in-Medicine Program would not be forthcoming. This program assumes even greater importance in the light of the recent report by the Association of American Medical Colleges that calls for a linking of information resources within academic health science centers. Dr. Mayer concluded his remarks by saying that several agenda items for this meeting concern change and our ability to cope with it: the issue of pricing NLM computerized retrieval services, intellectual property rights, the Board of Scientific Counselors, and the development of MEDLARS III.

## II. REPORT OF THE SURGEON GENERAL, PHS

Dr. C. Everett Koop, PHS Surgeon General and Deputy Assistant Secretary for Health, discussed three major initiatives: organ procurement, hip fractures in the elderly, and an information retrieval network on resources for severely damaged infants. He reported on last June's consensus development conference on liver transplantation and said that President Reagan had asked him to set up a workshop to address some of the questions involved with liver transplants, including the problem of a temporary shortage of organs. The workshop was also held last June. Education of the public and the medical profession emerged as a pressing need and an education campaign is being planned to encourage organ donations. Dr. Koop believes that the private sector system, with PHS acting as a catalyst, is adequate to meet the problem of organ procurement. Two weeks ago a new private organization was formed, the American Council on Transplantation (ACT), an umbrella group of all those concerned with the many aspects of organ procurement, transportation, and transplantation. Dr. Koop noted that there is a political problem to be overcome--bills in the House and Senate propose taking organ transplantation out of the private sector and making it a Federal responsibility. In the area of the second major initiative--hip fractures--the Surgeon General noted that this is a problem that afflicts 200,000 women each year in the U.S.

Some 91,000 deaths are attributed to it. Education of the elderly would greatly reduce this toll, he said, and a demonstration project is planned in the Tampa/St. Petersburg area of Florida. The third initiative is to help establish a computerized network to assist pediatricians and parents of severely handicapped infants to tap into local, state, and national sources for help. The Kennedy Institute in Baltimore (for handicapped children) has been accumulating such information, and this database has been put up on the new AMA/GTE information retrieval system and is available to physicians. In addition, South Carolina has developed a computerized data retrieval system available free to consumers that identifies local sources of help for parents of children with problems. HHS has given a grant both to the State of South Carolina and to the Kennedy Institute to combine and expand these two systems and make the resultant system available for testing in nine southern states. It may be possible to extend it nationwide for less than \$1.5 million. Such a system may make the onerous "Infant Doe" regulations unnecessary.

### III. REPORT OF THE NIH DEPUTY DIRECTOR FOR EXTRAMURAL RESEARCH AND TRAINING

Dr. William F. Raub presented several slides describing trends over the last decade in NIH research and training grant applications reviewed, recommended for approval, and actually funded. The numbers of applications reviewed and approved have risen steadily; the number of applications actually receiving funds has been fairly level. NIH actions to stabilize the number of grant awards has been successful, but at the cost of an increasing gulf between the number eligible for funding and those actually funded. Over the same period, Dr. Raub said, the percentage of money going for research grants has increased from 66 in 1972 to 82 in 1982. This increase is at the expense of R and D contracts and National Research Service Awards (training). This trend is of great concern to the institute directors at NIH. Relating these trends to NLM, Dr. Raub said there is the danger that as NIH pours its energies into grant affairs, it may neglect the special needs and opportunities of the Library. NLM must ensure that NIH appreciates those aspects of its operation that are unique and that should receive protection and encouragement in NIH-wide planning and budgeting.

Responding to a question from Dr. Molnar, Dr. Raub said that the "squeeze" on extramural funds also has a severe impact on the resources available for intramural research. There has been little real growth in intramural research. Dr. Mayer asked about the prospect for assistance from the Institutes for NLM's Computers-in-Medicine Program. Dr. Raub responded that there has been no policy decision about this yet. The problem is that the individual NIH Institutes do not perceive the program as having a direct utilitarian impact on their activities and thus are reluctant to proffer support.

### IV. CONSIDERATION OF MINUTES OF PREVIOUS MEETING

The Regents approved the minutes of the May 26-27, 1983, meeting without change.

### V. DATES OF FUTURE MEETINGS

The Board will meet next on January 26-27, 1984. The dates of May 24-25, 1984, were confirmed for the following meeting. October 11-12, 1984, were the tentative dates selected for next fall's meeting.

## VI. REPORT OF THE NLM ACTING DIRECTOR

Dr. Harold M. Schoolman, recently appointed NLM Acting Director, reported that NLM is now operating under a Continuing Resolution at a level of \$46.4 million. The President's 1984 request for NLM is \$49.6 million. There are bills in the House and Senate that would reauthorize the Medical Library Assistance Act for three years at varying amounts (roughly \$10, \$11, and \$12 million per year). The current level under the Continuing Resolution is \$7.5 million. The prospects for these bills are uncertain. The House and Senate appropriation bills have both been passed (although without funds for the Medical Library Assistance Act). The House bill report includes language that affirms the propriety of NLM charging to recover full access costs for its service. The report says that for-profit organizations, however, might be required to pay a "full market rate" rather than just access costs for all NLM services. NLM will provide a report to the House Committee on this subject.

Dr. Schoolman announced several personnel changes. Dr. Mary Corning retired at the end of August; Dr. Calvin Plimpton has come on board as a special expert to assist with NLM's international programs; Dr. John Parascandola is the new Chief of the History of Medicine Division; and Mr. Earl Henderson has been appointed Deputy Director of the Lister Hill National Center for Biomedical Communications. The last item Dr. Schoolman reported on was the study by the Department of NLM's pricing policies. The final report of the study is still under review and it is expected to be released within 90 days.

## VII. PRICING POLICY FOR DATABASE SUBSETS

Mr. Kent Smith, NLM Deputy Director, reported to the Board on actions taken since the last meeting, when the Regents conducted an extensive review of the pricing of NLM services. The Board policy has been that prices charged for NLM's products and services must not compromise NLM's critical function in support of the health professions. Since NLM's prices could inhibit access through the new algorithm, adjustments will be made so as not to exceed the full cost to access the system. In addition, the use fee charged to commercial vendors of NLM's databases will be reduced from \$4 per hour in prime time and \$3 per hour in nonprime time to \$3 and \$2, respectively. The minimum fee for the MEDLINE tapes will be changed to \$5,000.

The Regents had opposed a differential pricing structure for health- and nonhealth-related users until reliable data could be obtained from a user survey. Mr. Smith reported that the Office of Management and Budget has approved the actual survey form and it will soon be sent to commercial users of MEDLARS. He also described the components of the new algorithm that now forms the basis for charging users of NLM's online network. NLM hopes eventually to be able to apply this algorithm also to commercial vendors and foreign centers. Using the new algorithm, most online users will see little change or perhaps a slight decrease in their monthly bills. A few users who download extensively will notice a significant increase. The total yield of revenues, Mr. Smith said, will approximate that of the previous connect-hour charge.

The Board identified at its last meeting the need for a policy governing subsets of the NLM databases. The increasingly widespread use of small and personal computers has made it attractive for individuals and libraries to maintain special subsets of the database to meet local needs. An NLM subcommittee, chaired by Lois Ann Colaianni, has looked at this issue recently and drafted a policy governing the creation of subsets. Mr. Smith distributed the draft policy to the Regents and summarized it briefly. The policy would make available portions of the MEDLINE database by offline "subsets," through tape, disc, or other storage medium, and also by "downloading," i.e., by users retrieving and storing portions of the database online for subsequent reuse. Several types of subsets would be available: (1) a portion of the file selected by NLM, e.g., corresponding to the Abridged Index Medicus journals; (2) an individualized subset specified by the requester and updated periodically; and (3) an individualized one-time subset. Subsets will also be classified as to whether they are for the personal use of one health professional or for multiple use by a number of persons. Formal agreements between NLM and subset users would prohibit further duplication or resale of the subsets. The charge for subsets should be established at a level to recover unique costs for providing the service. Mr. Smith presented a proposed rate schedule of charges for the various combinations of personal/multiple use and magnetic tape, floppy disc, and downloading online. This draft policy is being sent to users of the NLM system to get their reaction. Comments by the Regents would also be most welcome, Mr. Smith said.

Mrs. Echelman encouraged the Regents to look at the overall reasonableness of the policy and not to focus on the individual prices proposed. She believes that it is important for NLM to establish such a policy. The idea of a local institution being able to create an online index to its holdings is very exciting, she added. Dr. Molnar complimented the NLM staff on creating a fair and understandable policy. The price structure and rationale is well thought out and will be an excellent framework from which to develop a future policy.

#### VIII. REPORT ON INTELLECTUAL PROPERTY RIGHTS

As reported by Dr. Schoolman at the last meeting, NLM convened an ad hoc group on intellectual property rights that met three times to discuss copyright issues as they are effected by new technologies. Dr. Robert M. Hayes, Chairman of the group, presented to the Regents their final report. He said that the purpose of the meetings was as much to begin a discussion among the interested parties as to actually have a significant outcome. The process was aimed at identifying both common ground among the parties and areas of disagreement. There were two areas of complete agreement, Dr. Hayes said. The first was the propriety of NLM storing deteriorating archival material on videodiscs. Dr. Schoolman briefly described how NLM would implement this with the medical publishers. The second area of agreement was that it was permissible for NLM to enter abstracts into its computerized databases. Dr. Hayes reviewed other portions of the report dealing with issues on which the group could reach no consensus. Among these were the

subjects of how to arrive at just compensation to publishers for NLM photocopying, creating differential output for different groups of users, how to preserve the intellectual integrity of original source material as the information it contains assumes different forms in machine-based files, and how to control and compensate copyright holders for downloading by users from large machine files. Perhaps the principal source of debate, Dr. Hayes said, was between the concept of "property rights," on the one hand, and the "rights of the public" on the other. After discussion, the group used the term "rights" to apply narrowly to legal or property rights only. A similar debate occurred in attempting to define the concept of "fair use" of copyrighted works.

Following Dr. Hayes' presentation, Mr. William Welsh described the interests of the Library of Congress (LC) in investigating the application of videodisc technology to both archival storage and providing information services. LC has several contracts out to develop its systems. Dr. Schoolman said that NLM will be glad to have LC look into the problems of distribution and services; NLM at this time will confine itself to archival uses of videodisc technology. Dr. Schoolman also commented that, although the areas of agreement among members of the ad hoc group were quite limited, there was considerable yielding by the members both to reach those agreements and to narrow the areas of disagreement. He reiterated the point made by Dr. Hayes that the process established was more important than the actual results. He is optimistic that future discussions will yield further positive results and that this process is much preferable to attempting to solve the problems in the courts or the Congress. After considerable discussion by the Regents, Dr. Mayer summed up the Board's feeling thus: Dr. Hayes, the members of the ad hoc group, and NLM staff are to be commended for the progress made and process established; the problem should continue to be dealt with head-on, involving the principal parties at interest and avoiding judicial and legislative remedies so far as possible; and the Copyright Office should be encouraged to continue and expand this kind of dialogue and to involve authors in future discussions.

#### IX. REPORT ON BOARD OF SCIENTIFIC COUNSELORS' MEETING

Dr. Richard B. Friedman, Director of NLM's Lister Hill National Center for Biomedical Communications, reported on the September 15-16 meeting of LHC's Board of Scientific Counselors. Dr. Friedman gave the Counselors an overview of LHC activities, and then three ongoing projects were presented in detail. The Counselors recommended that the LHC should limit the number of major projects to those on which the Center can reasonably hope to have a major impact. The Center should show leadership in a few concentrated areas, especially areas which are being neglected by industry or academic groups. Within this framework three current LHC projects were examined in detail: The National Learning Resource Demonstration Center, the Electronic Document Storage and Retrieval Project (EDSR), and the Computer Science Research Program. Dr. Friedman briefly described the reaction of the Counselors to each activity. They felt that the Learning Resource Demonstration Center was needed and appropriate, but that the LHC should involve academic centers and health professionals in its development. The Center should ultimately be used for training and dissemination of the latest in educational technology,

but first there were a number of questions to be addressed having to do with setting criteria for selecting the best hardware and software. The second project, the EDSR, has been under way at LHC for several years and is now evolving from a prototype development project into a laboratory. Dr. Friedman said that, although there is much industrial activity in this area, the Counselors felt that there were significant areas in which LHC could make a contribution. The third area, the Computer Science Research Project, includes a nascent effort in automatic indexing. The Counselors favorably reviewed LHC's plans for this, but they recommended more clearly defined research objectives and they strongly urged LHC to collaborate with outside research organizations. Dr. Friedman summarized the recommendations of the Board of Scientific Counselors thus: LHC must limit the number of its research projects to a few in which the Center has expertise; LHC must clearly enunciate the research objectives at the outset; LHC must collaborate with strong research groups in industry and academia.

Following the report of the LHC Director, Dr. Charles Molnar, who attended the meeting of the Board of Scientific Counselors, commented that in some respects it was a "getting acquainted" meeting. He expects that there will be fuller, more substantive discussions at their next meeting. Nevertheless, he said, there was a clear perception by the Counselors of the unique character and importance of the Lister Hill Center. He reiterated the points made by Dr. Friedman about limiting the number of projects and the need for a clearer definition of objectives. This latter is needed not only for individual projects, he said, but for the Lister Hill Center program overall. It is important for the Board of Regents to participate in this review of the policies and objectives of the LHC. A position paper setting these forth should be developed, he added. He suggested in the form of a motion that the Board of Regents' Lister Hill Center Subcommittee work with Dr. Friedman, the NLM Director, and the Board of Scientific Counselors to draw up clear goals and objectives for the Lister Hill Center. After brief discussion, the Regents unanimously approved Dr. Molnar's suggestion.

#### X. POSITION PAPER ON COST RECOVERY

Mrs. Shirley Echelman presented to the Regents a draft position paper on the subject of NLM's role in providing information services vis-à-vis the private sector and how these services should properly be priced. At their last meeting the Regents had asked Mrs. Echelman, Dr. DeBakey, and Dr. Davies to draft such a position paper. The paper gave rise to a lively debate among the Regents, including a discussion of the substance, tone, and intended use of the paper. As a result of this discussion, substantial changes were made to the paper. At the end of the meeting the Regents, by voice vote, agreed to accept the paper as amended, subject to further comments the members may send to the Board Chairman in the next two weeks. Unless these comments are substantial and, in the Chairman's judgment, would require further consideration by the entire Board, Dr. Mayer will put the paper in final form and submit it to the HHS Secretary on behalf of the Regents.

## XI. MEDLARS III UPDATE

Mr. John Anderson, Director of NLM's Information Systems, reviewed the progress made to date in achieving the goals set four years ago toward complete automation of NLM's literature retrieval system. He announced that the first contract was awarded in September to LOGICON Corporation, a nationwide company, with offices on both coasts. The award was for \$3.8 million (60% of the entire project), in keeping with the original \$6.0 million estimate which includes the additional two contracts to be awarded after the first phase has been completed. The company has done extensive online retrieval system work for the Department of Defense and has recently completed a bibliographic retrieval system for Wilson Publishing Company.

Mr. Anderson explained that it has been the task of his staff over the past two years to analyze the problems in this large automation project by addressing the pieces one at a time. The LOGICON contract, as a first phase, is divided into six tasks. The time schedule for implementing Phase I will be eighteen months. The next two contracts for Phases II and III will then be awarded without competition or administrative delay to LOGICON or, if NLM decides, to another contractor. In the interim, NLM has gone forward with some automation activities: Bibliographic control of the collection has been enhanced, an automated indexing system is nearing completion, in process is the national serials holding data for the seven RML regions, the CITE online catalog was adopted, and by the end of the year a new interlibrary loan cost and billing mechanism will be in place. The installation of a new IBM 3033 multiprocessor in 1982 upgraded the system to twice its previous capacity. Its capabilities should be adequate for another eight years. NLM could not find an information retrieval system as a package to meet its specifications and standards of performance. The contractor, therefore, will develop for NLM a specialized bibliographic retrieval system. MEDLARS III will be linked to the Library of Congress and the Stanford consortium system as a requirement of the contract.

Mr. Anderson noted that the most exciting feature technically was the work to be done by ORACLE--the database management system--and the realization that the ORACLE system is "relational." The relational database concept is new to the industry. A relational database allows great flexibility in data manipulation and access and also reduces program implementation time. With the "inverted" file technique, the user in the past had to decide months in advance how to retrieve the data. There are at present only two relational databases on the market for large-scale computers, and using this system involves certain risks. NLM has provided for four risk-minimization features. Fortunately, if it becomes necessary, the ORACLE database system has a backup feature to the classic "inverted" file capability. At Mr. Fenwick's suggestion, and late in the proposal preparation stage, NLM insisted that the contractor deliver the retrieval capability as part of Phase I. This will stress the ORACLE system and reveal relatively early whether or not ORACLE will perform adequately. Finally, LOGICON volunteered to adhere to the structural design and implementation standards, so that, in the event of an unforeseen surprise, they will have the option to replace the ORACLE database management system with another.



In conclusion, Mr. Anderson noted that it has been his belief all along that there need not be a MEDLARS IV if a reasonable job can be done with MEDLARS III. Development need not be stepwise. Toward that end, the Office of Computer and Communications Systems (OCCS) has been restructured and MEDLARS III, which up until now has stood alone, has been located under OCCS as part of its new Development Branch. This branch is expected to continue the evolution of MEDLARS.

Mr. Russell Fenwick, consultant on the project, remarked that from a systems design standpoint, given the completion of Phases II and III, MEDLARS III will represent a state-of-the-art system. It should provide a high quality, user-friendly service. Internally, it will represent a fully integrated system with significant productivity improvements. For the future the design is capable of accommodating needs and service opportunities. Mr. Fenwick noted, that reports on LOGICON Corporation and ORACLE, Inc. have been quite favorable. As to product management, the phasing, the task and subtask level planning and deliverable management is going to provide as much protection as one can achieve. Since the system will not be completed in its entirety under Phase I, it cannot be tested in its entirety, so that there is an act of faith involved until the time when it comes to the point where the system can be integrated and tested in a useful chunk. MEDLARS III staff has gone as far as it is possible and prudent in protecting the Library to assure that the deliverables are on schedule and acceptable. Finally, in the overall risk-hedging, Phase I of the project is capable of production during the course of development of Phases II and III. From the outset, Mr. Fenwick noted, he had felt that this was an important consideration. A \$3.8 million dollar investment should be more than simply a set of foundation software which awaits the development of Phases II and III products for implementation and usefulness.

Mr. Welsh suggested that the problem of handling Chinese, Japanese, Korean and other languages should be explored for MEDLARS III capabilities. The Research Libraries Group of the Library of Congress has recently developed the capability of handling these languages in the vernacular. Since NLM's work in that area is limited, the Library could possibly use the Library of Congress's terminals online to the Stanford database. Mr. Welsh then raised the question of backup to the database, e.g., for the public card catalog. There is parallel drive, Mr. Anderson said, to replace the disc capacity with more modern technology that became available with the IBM 3033 which will give NLM 40 billion bites of mass storage.

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MEETING CLOSED FOR THE REVIEW OF GRANT APPLICATIONS--10:15 to 10:35 A.M., OCTOBER 14

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## XII. REVIEW OF PENDING APPLICATIONS

Before proceeding with the consideration of pending applications, Dr. Roger W. Dahlen, Chief of the Biomedical Information Support Branch, EP, informed Board members and consultants of confidentiality and conflict-of-interest procedures and reminded them to sign, at the conclusion of the grant application review, the statement 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 which met on October 12. A total of 27 applications was reviewed, of which 12 were recommended for approval and 15 for disapproval. Grant applications recommended for approval by the Board are listed in the summary actions (Attachment B ). Interim actions taken by the Extramural Programs' staff since the May Board meeting were noted.

An exception to a 1974 Board of Regents' policy was made on the Publication Grant Application for the University of California (Dan L. Lindsley), by allowing more than three-year support, with the further stipulation that funds will be equally shared by NLM and the National Institutes of General Medical Sciences and that no further funding for the same project will be allowed in the future.

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MEETING REOPENED AT 10:35 A.M. AND REMAINED OPEN TO ADJOURNEMENT AT 11:30 A.M.  
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### XIII. REPORT OF THE ACTING ASSOCIATE DIRECTOR FOR EXTRAMURAL PROGRAMS

Dr. William G. Cooper announced the retirement of Mrs. Marguerite L. Pusey as Administrative and Grants Management Officer of Extramural Programs as of October 31 and introduced her replacement, Mr. Brian Campbell, who comes to EP well qualified from the National Heart, Lung and Blood Institute.

Dr. Cooper continued with the budget review and pointed to what was accomplished in FY 1983 although the appropriated funds had remained at the \$7.5 million level. It is again difficult to predict what 1984 will bring, but at this time a "continuing resolution" is in effect and could remain through FY 1984 at the \$7.5 million maximum. He pointed out that in the chart, showing 1984 projections, Integrated Academic Information Management Systems (IAIMS) is a separate line item of \$425,000, although it is part of the Resource Grant initiative. This was the figure included in the recent announcement for the program. In addition to the IAIMS effort, EP is promoting its other programs through a variety of educational means, part of which are the new fact sheets describing NLM's grant programs. Responding to a question from the Chairman on how EP would use a possible \$10.0 million appropriation, Dr. Cooper said that there would be a restoration of the losses incurred by the Publication Grant and the Computers-in-Medicine Programs, as well as additional resources for the new IAIMS project.

Dr. Cooper then turned to the new Training Grant Program, a one-time initiative, which was announced in April and for which 17 applications had been received. An initial review took place on September 20 by an ad hoc review group, because some of the applicants were members of the Biomedical Library Review Committee. Additional information is now being gathered for a final merit review of the remaining nine applications on December 16 by the same ad hoc group. Funding of \$440,000 for approximately four awards to new institutions will be available. There is a possibility that an additional two applications could be funded, if the quality warrants, with funds from another NIH institute which has expressed interest in the program. Dr. Mayer emphasized that it needs to be clearly established that what NLM is facing is a potential downsizing of the Computers-in-Medicine Training Program from nine original projects to a possible four at a time when it should be moving in the opposite direction.

Next, Dr. Cooper brought members up to date on the IAIMS initiative, involving three elements for NLM. First, contract awards were made in September to the University of Maryland, Columbia University, Georgetown University and the University of Utah. The four contracts amount to \$346,218 of NLM funds (not MLAA funds), which represent the NLM portion of a \$1,159 million total estimated cost for these projects. The awardees made up the difference from institutional resources, a commendable effort that speaks well for the perceived importance of the program. In January the Board will be informed in more detail about the progress of these projects. The second element in the IAIMS development was begun in July with a Request for Grant Applications (RFA). The receipt due date is December 15, and, following the initial merit review, the applications will come before the Board at a later meeting. The third element is the earmarking of \$5.9 million from the FY 83 supplemental appropriation bill for development of an IAIMS at the University of Oregon Health Sciences Center. Dr. Cooper said that a team, consisting of himself, Mr. Broering, Ms. Matheson and Ms. Buyer of NLM has been assigned to consult with the University of Oregon and work on the first steps of issuing a Request for Proposal (RFP). The award mechanism will be a non-competitive contract procurement for \$5.9 million, probably in two phases. The first phase is a planning contract, tentatively planned to be awarded by January 1984, while the second phase--implementation of the IAIMS--is tentatively planned to be awarded in January 1985.

#### XIV. NEW BUSINESS

The Chairman noted that several members had approached him indicating that it might be helpful (1) to have an opportunity to spend as much as one-half day during the next meeting in open, philosophical discussion about various issues impacting on the Board and the Library, and (2) to have the opportunity to participate in a visit to the Library of Congress for a review of activities there. This might be considered for the next meeting or the May meeting of the Board, as it fits into Mr. Welsh's schedule. The Board was in favor. Dr. Davies suggested that some discussion of a national information policy would be in order as an agenda item by someone knowledgeable on the subject. Mr. Welsh noted that "The 1982 Report of the National Commission on Libraries and Information Science Task Force of the Public/Private Sector Interaction in Providing Information Services" which speaks to this issue, is available. A discussion could be held on this subject with knowledgeable outside people.

Dr. Schoolman noted that subsequent to the discussion of MEDLARS III, a number of comments were made by some Board members that indicated as clear and succinct as that presentation was, they were still puzzled. He suggested that those members would be well served by a walk-through of the Library procedure from acquisition to the technical services to see what is involved from the time of locating and ordering the book or journal to having it appear in the catalog, on the shelf, and in the database. This may give the Board a greater appreciation of the automation that MEDLARS III is trying to accomplish. Dr. Bowles agreed that this might be informative to some Board members and he would be in favor of including it on the agenda. Dr. Mayer suggested that a two-hour period on the Wednesday before the next meeting, from 4:00 to 6:00 p.m., may be helpful.

XV. ADJOURNMENT

The meeting was adjourned at 11:30 a.m., Friday, October 14, 1983.

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Wednesday, October 12, 1983, 2:00 to 2:40 p.m.  
(EP Subcommittee--List of Attendees under Attachment C)

Thursday, October 13, 1983, 9:00 a.m. to 4:30 p.m.

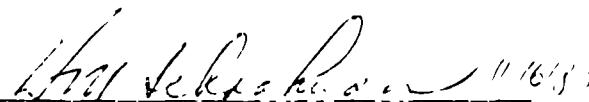
Friday, October 14, 1983, 9:00 a.m. to 11:30 a.m.

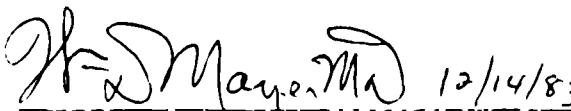
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ACTIONS TAKEN BY THE BOARD OF REGENTS

1. The Board approved the motion that the Board's Lister Hill Center Subcommittee work with the Director, Lister Hill National Center for Biomedical Communications, the NLM Director and the Board of Scientific Counselors to draw up clear goals and objectives for the Center.
2. The Board agreed to accept the position paper on pricing of NLM services, as amended, subject to further comments by Board members.
3. The Board concurred with recommendations of the Extramural Programs Subcommittee. Grant applications recommended for approval are listed in the summary actions (Attachment B)

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

  
 Harold M. Schoolman, M.D. (Date)  
 Executive Secretary

  
 William D. Mayer, M.D. (Date)  
 Chairman

BOARD OF REGENTS OF THE NATIONAL LIBRARY OF MEDICINECHAIRMAN

MAYER, William D., M.D. (8/3/84)  
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ECHELMAN, Shirley (8/3/85)  
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 Library of Congress  
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BRALLIAR, Max B., Lt. Gen., USAF, MC  
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Alternate

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Board of Regents' Roster (continued)

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Deputy Assistant Secretary for Health  
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Washington, DC 20201 202-245-6467

MITTEMEYER, Bernhard, Lt. Gen., MC, USA  
The Surgeon General  
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RABIN, Robert, Ph.D.  
Actg. Asst. Director for Biological,  
Behavioral, and Social Sciences  
National Science Foundation  
1800 G Street, N.W., Room 506  
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SEATON, Lewis H., Vice Adm., MC, USN  
Surgeon General.  
Office of the Chief of Naval  
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Chief, Graduate Medical Education Branch  
Education and Training Division  
U.S. Army Medical Department  
Personnel Support Agency  
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HAGEN, Donald F., Capt., MC, USN  
Director, Education and Training Div.  
Office of the Chief of Naval  
Operations (OP-939)  
Department of the Navy  
Washington, DC 20350 292-653-1685

EXECUTIVE SECRETARY

SCHOOLMAN, Harold M., M.D.  
Acting Director  
National Library of Medicine  
Bethesda, MD 20209 301-496-4725

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

COUNCIL DATE: OCTOBER 1983

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
2 R01 LM 03688-04	COMPUTER BASED CLINICAL DECISION ANALYSIS	04 59,565 05 64,803 06 68,293
2 R01 LM 03689-04	DUAL: GM GENETIC VARIATIONS OF DROSOPHILA MELANOGASTER	04 53,727 05 57,920 06 69,264
1 R01 LM 04105-01	A BIOLOGICAL HISTORY OF THE BLACK IN BRAZIL	01 37,462
1 R01 LM 04139-01	THE DERIVATION AND GRAMMAR OF NAMES OF CULICIDAE	01 17,567 02 17,577
1 R01 LM 04150-01	DUAL: HL THE LUNG AND HYPERBARIC OXYGEN	01 5,814

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

(Arranged numerically by program)

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
1 G08 LM 04035--01A1	CORNELL HEALTH SCIENCES COMPUTERIZED LIBRARY NETWORK	205,849 90,943
		01A1 02
1 G08 LM 04138--01	RAISE SHARED AUDIOVISUAL RESOURCE PROJECT	42,730 47,312
		01 02
1 G08 LM 04159--01	LIBRARY COMPUTER INFORMATION SERVICE	73,050 61,010
		01 02

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 1983

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
1 607 LM 04142-01	CONSORTIUM IMPROVEMENT GRANT	48,310
1 607 LM 04147-01	SINGLE-INSTITUTION GRANT	4,000
1 607 LM 04156-01	SINGLE-INSTITUTION GRANT	5,700
1 607 LM 04161-01	CONSORTIUM IMPROVEMENT GRANT	23,618

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

October 12, 1983

A T T E N D E E S

Subcommittee Members Present:

Brig. Gen. Vernon Chong  
Dr. Lois E. DeBakey

NLM Staff Present:

Dr. Harold M. Schoolman, Acting Director, NLM  
Dr. William G. Cooper, Acting Associate Director, EP  
Mr. Arthur J. Broering, Deputy Associate Director, EP  
Mrs. Ruth Bortz, Grants Management Specialist, EP  
Dr. Jeanne L. Brand, Chief, International Programs Branch, EP  
Mr. Brian Campbell, Administrative/Grants Management Officer, EP  
Mrs. Karin K. Colton, Committee Management Assistant, EP  
Dr. Roger W. Dahlen, Chief, Biomedical Information Support Branch, EP  
Mrs. Rose Marie Holston, Program Analyst, EP  
Mrs. Frances E. Johnson, Program Officer, EP  
Mrs. M. Kathleen Nichols, Grants Management Specialist, EP  
Mrs. Marguerite L. Pusey, Administrative/Grants Management Officer, EP  
Mrs. Roberta Spolin, Grants Management Specialist, EP  
Mr. Richard T. West, Chief, Office of Program Planning and Evaluation, EP  
Mr. Randall Worthington, Program Officer, EP