DEPARTMENT OF HEALTH AND HUMAN SERVICES
NATIONAL INSTITUTES OF HEALTH
NATIONAL CENTER FOR RESEARCH RESOURCES

NATIONAL ADVISORY RESEARCH RESOURCES COUNCIL
MINUTES OF MEETING
JANUARY 23, 2003

The National Advisory Research Resources Council convened for its 123rd session at 8:30 a.m. on Thursday, January 23, 2003, in Conference Room 10, Building 31. Dr. Judith L. Vaitukaitis, Director, National Center for Research Resources (NCRR), National Institutes of Health (NIH), presided as Chair. The meeting was open to the public until 2:10 p.m., at which time it was closed to the public for the review, discussion, and evaluation of grant applications as provided in Sections 552b(c)(4) and 552b(c)(6), Title 5, U.S. Code, and Section 10(d) of Public Law 92-463.

COUNCIL MEMBERS PRESENT

Dr. Joseph D. Andrade
Dr. Stephen W. Barthold
Dr. Kenneth Berns
Ms. Catherine Bertram
Dr. Randall E. Dalton
Dr. Robert J. Desnick
Dr. Machi F. Dilworth
Liaison Member, NSF
Dr. Mark H. Ellisman
Dr. James G. Fox
Dr. Nigel Harris
Dr. Roland F. Hirsch
Liaison Member, DOE
Dr. Gwen A. Jacobs
Dr. William W. King
Dr. John E. Maupin, Jr.
Dr. William R. Morton
Dr. Burton A. Weisbrod
Dr. Monte Westerfield
Dr. James H. Wyche

COUNCIL MEMBERS ABSENT

Dr. Diana S. Natalicio
Dr. Paul Ramsey
Dr. Judith Swain

SPECIAL INVITED GUESTS FOR OPEN SESSION

Dr. John K. Critser, Director, Gilbreath-McLorn Center for Comparative Medicine, College of Veterinary Medicine, University of Missouri
Dr. Muriel Davisson, Senior Staff Scientist, The Jackson Laboratory
Dr. Stephen Groft, Director, Office of Rare Diseases
Dr. Adrian Sandra Dobs, Professor of Medicine, Endocrinology and Metabolism, Johns Hopkins University School of Medicine
Dr. Elias A. Zerhouni, Director, National Institutes of Health

STAFF OF OTHER NIH COMPONENTS

Dr. Michael Sayre, CSR
Dr. Giovanna Spinella, ORD/OD

OTHERS PRESENT

Ms. Vicki Contie, Equals Three Communications, Bethesda, MD
Ms. Joanne Hawana, *The Blue Sheet*, Chevy Chase, MD
Mr. Stephen Heinig, Senior Staff Associate, Division of Biomedical and Health Sciences Research, Association of American Medical Colleges, Washington, DC
Mr. Steven Stocker, Equals Three Communications, Bethesda, MD

OPEN SESSION

I. Call to Order: Dr. Judith Vaitukaitis, Director, NCRR

Dr. Vaitukaitis welcomed Council members and guests to the 123rd meeting of the National Advisory Research Resources Council. She announced that the following Council members would not be present: Dr. Diana Natalicio, Dr. Paul Ramsey, and Dr. Judith Swain. Four new members were recently appointed to the Council by Tommy Thompson, Secretary, Department of Health and Human Services (DHHS). These new members (listed below) will attend the May 2003 Council meeting.

- Dr. Robert J. Beall, President and Chief Executive Officer, Cystic Fibrosis Foundation
- Dr. Wah Chiu, Alvin Romansky Professor of Biochemistry, Baylor College of Medicine
- Dr. Catherine C. Fenselau, Professor of Chemistry and Biochemistry, Member, Greenebaum Cancer Center, University of Maryland Medical School
- Dr. Joan S. Hunt, University Distinguished Professor, Department of Anatomy and Cell Biology, University of Kansas Medical Center

Dr. Vaitukaitis acknowledged the invaluable service of the following retiring Council members: Dr. Joseph Andrade, Dr. Kenneth Berns, Dr. Judith Swain, Dr. Burton Weisbrod, and Dr. James Wyche.

II. Consideration of Minutes: Dr. Judith Vaitukaitis, Director, NCRR

The minutes of the Council meetings held on September 19, 2002, were approved as written.

III. Future Meeting Dates: Dr. Judith Vaitukaitis, Director, NCRR

The next Council meeting will be a one-day meeting to be held on Thursday, May 15, 2003.

IV. Personnel Update: Dr. Judith Vaitukaitis, Director, NCRR

DHHS Personnel

The Senate voted on October 17 to confirm Dr. Mark McClellan as the Commissioner of the Food and Drug Administration. Dr. McClellan holds an M.D. from the Harvard-MIT Division of Health Sciences and Technology and a Ph.D. in Economics from MIT. He completed his residency training in internal medicine at Brigham and Women's Hospital in Boston, and he is board certified in internal medicine. Dr. McClellan also served at the U.S. Department of the Treasury as a Deputy Assistant Secretary for Economic Policy from 1998 to 1999.

On October 7, 2002, Tommy Thompson named Dr. Alma L. Golden to serve as Deputy Assistant Secretary for Population Affairs. Dr. Golden will oversee the Office of Population Affairs within the DHHS Office of Public Health and Science. Prior to joining the DHHS, Dr. Golden served as Medical Director for the SAGE Advice Council, an organization for training health professionals in effective health intervention methods for adolescents. She has served on several national and state committees, including the American Academy of Pediatrics Task Force and the School Health Advisory Committee to the Texas State Board of Health.

NIH Personnel

Dr. Belinda Seto will serve as Acting Director for the Office of Extramural Research (OER) for NIH, replacing the former Director Dr. Wendy Baldwin. Dr. Seto has been Deputy Director and Senior Advisor in the OER since 1994. In addition to having broad experience with all aspects of NIH extramural programs, she has worked closely with DHHS staff on numerous issues, including clinical research, human subjects protection, and race/ethnicity data. Dr. Seto will serve as Acting Deputy Director for the OER until a new Director is named.

Dr. Mark Rohrbaugh has been appointed as the new Director of the Office of Technology Transfer (OTT) in the Office of Intramural Research, Office of the Director of NIH. Dr. Rohrbaugh joined OTT in May 2001 as the Deputy Director, and he has served as Acting Director since September 2001. He also represents DHHS on the National Science and Technology Council's Technology Committee.

Dr. Thomas R. Insel returned to NIH this past November as the Director of the National Institute of Mental Health, where he conducted behavioral and clinical neuroscience research for 15 years. Dr. Insel had been a Professor in the Department of Psychiatry and the Director of the Center for Behavioral Neuroscience at Emory University School of Medicine in Atlanta since 1994.

NCRR Personnel

Dr. Guo (Gary) Zhang joined NCRR as a Scientific Review Administrator in the Office of Review. Dr. Zhang was previously employed by the National Institute of Dental and Craniofacial Research (NIDCR) as the Director of the Physiology, Pharmacogenetics, and Injury Program.

Dr. Carol Lambert joined the NCRR staff as a Scientific Review Administrator in the Office of Review. Dr. Lambert was previously employed by the University of Maryland, Baltimore as Assistant Professor, Diagnostic Radiology.

Ms. Cheryl Stevens joined the NCRR staff as the Senior Administrative Officer. Ms. Stevens was previously employed by the NIDCR as a Special Assistant for Operations Management.

Mr. John Heckler joined the NCRR staff as a Program Analyst for the Division of Clinical Research. Mr. Heckler was previously employed by the United States Department of the Navy as an Information Technology Specialist.

Ms. Judy O'Keefe joined the NCRR staff in the fall of 2002 as a Budget Analyst in the Financial Management Office. Ms. O'Keefe was previously employed by the U.S. Department of Commerce as a Budget Analyst.

Dr. Elaine Collier joined the NCRR staff as a Medical Officer in the Division of Clinical Research. Dr. Collier was previously employed by NIAID as Acting Chief, Clinical Immunology Branch and Chief, Autoimmunity Section.

Dr. Bo Hong joined the NCRR staff as a Scientific Review Administrator for the Office of Review. Dr. Hong was previously employed by University of California, Irvine as an Assistant Professor in the Department of Chemistry.

Mr. Ron Bonfilio joined the NCRR staff as a Program Analyst in the Division of Comparative Medicine. Mr. Bonfilio was previously employed by the U.S. General Accounting Office as a Program Analyst.

NCRR Retirees

Mr. John Seachrist, NCRR's Grants Management Officer for the past three years, retired at the beginning of 2003–after more than 35 years of service at NIH.

Mr. Maynard Hurd, an NIH Grants Management Specialist for over 40 years, retired at the beginning of 2003.

Dr. John Ryan, a Scientific Review Administrator who was responsible for the review of many of the General Clinical Research Centers (GCRCs) for the past three years, retired at the beginning of 2003.

V. Legislative and Budget Updates: Dr. Judith Vaitukaitis, Director, NCRR

Dr. Vaitukaitis reported that the Fiscal Year (FY) 2003 budget would be the final year of the five-year doubling of the NIH budget. The President's budget request for NIH for 2003 is $27.2 billion, an increase of 15.9 percent over the FY 2002 Appropriation. The President's budget for NCRR as requested is $1.1 billion, an increase of 7.8 percent over FY 2002.

Because the Congress has not completed work on 11 of the 13 Appropriation bills, NCRR, along with much of the Federal government, has been operating under a series of Continuing Resolutions since the beginning of the fiscal year on October 1, 2002. It is anticipated that a budget will be in place by mid-February.

VI. NCRR's Strategic Plan for 2004-2008: Dr. Judith Vaitukaitis, Director, NCRR

Every five years, NCRR develops a strategic plan to anticipate the research resource needs of the NIH-supported biomedical community. To prepare the Strategic Plan for 2004-2008, NCRR is asking scientists around the country to identify emerging scientific trends and make recommendations concerning research resources and technologies that will be needed in the future. The information provided by researchers will then serve as a framework for discussions at the Council meeting to be held on September 10 and 11, 2003, which will serve as the planning forum.

In addition to providing input about emerging trends and future needs, researchers are asked to recommend strategies for eliminating barriers to progress and enhancing access to research resources and technologies. Also, they may recommend individuals to serve as panel members for the September planning forum. The Federal Register, dated January 29, 2003, contains all of NCRR's questions related to updating the plan. Council members were provided copies of the current strategic plan (1998-2003) for reference.

VII. Recommendation for Modification of GCRC Guidelines Regarding Activities in Non-accredited Facilities: Dr. Anthony Hayward, Director, Division of Clinical Research, NCRR

Dr. Hayward requested approval to modify the GCRC Guidelines, which currently state that: "Inpatient and outpatient areas of the GCRC must be located in facilities either accredited by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) or certified to accept Medicare and/or Medicaid reimbursement."

Dr. Hayward recommended modifying the guidelines to allow low-risk research activity in unaccredited facilities. Such activities could include administering a questionnaire and

obtaining a buccal swab by GCRC-grant-supported personnel (e.g., nurses), and the facilities in which they might occur could include a school, church, museum or home. Such activity would be reported in the GCRC census; however, it would not be reported as inpatient days or outpatient visits. Rather, such activity would be classified as a new category called "offsite research visits (ORVs)."

All GCRC protocols continue to require approval of the Institutional Review Board and GCRC Advisory Committee (GAC) before they may be initiated. Future GAC review of protocols with ORVs must include (and document in the minutes) an assessment that the facility in which the ORV is to be conducted will not compromise research subject safety or data confidentiality and that the medical coverage will be appropriate for the risk level of the proposed research activity. Initially, ORVs will only be allowed when they are part of a study receiving NIH or comparable peer-reviewed support other than the GCRC (M01) grant.

NCRR Council approved the request, adding that investigators should be sensitive to any special community considerations that may apply to offsite locations.

VIII. Collaborations Between NCRR and the Office of Rare Diseases (ORD): Dr. Elaine Collier, Assistant Director for Clinical Research, NCRR and Dr. Stephen Groft, Director, ORD

NCRR and the Office of Rare Diseases (ORD) at NIH are developing an initiative for a Rare Diseases Clinical Research Network composed of Rare Diseases Clinical Research Centers (RDCRCs) and a Data Technology Coordinating Center (DTCC). The purpose of this research network is to facilitate: 1) collaborative clinical research in rare diseases; 2) training of clinical investigators in rare diseases research; 3) a testbed for distributed clinical data management that incorporates novel approaches and technologies for data management, data mining, and data sharing across diseases, data types, and platforms; and 4) access to information related to rare diseases for basic and clinical researchers, academic and practicing physicians, patients, and the general public.

Each RDCRC will include a consortium of clinical investigators, institutions, GCRCs, and relevant organizations for the study of a subgroup of rare diseases. The DTCC (a collaboration between database and computational/computer science innovators) will provide a scalable coordinated clinical data management system for collection, storage, and analysis of data of RDCRCs; a portal and tools for integration of developed and publicly available data sets for data mining at RDCRCs; web-based recruitment and referral; and a user friendly resource site for the public, research scientists, and clinicians. This cooperative program should facilitate identification of biomarkers for disease risk, disease severity/activity, and clinical outcome. It should also encourage development of new approaches to diagnosis, prevention, and treatment of rare diseases.

IX. Report from the Research Centers in Minority Institutions (RCMI) Principal Investigators and Program Directors Meeting: Dr Shelia McClure, Health Scientist Administrator, NCRR

The RCMI Principal Investigators and Program Directors meet annually to discuss future priorities, needs, and directions of the RCMI Program. At the December 7, 2002 meeting, the following recommendations were made: 1) Increase the number of senior investigators serving as research mentors for junior faculty and students. 2) Foster the recruitment of "magnet" research investigators. 3) Provide more opportunities for collaborations among the RCMI, and between RCMIs and research-intensive medical centers. 4) Provide mechanisms and opportunities for RCMIs to fully participate in the bio-defense research agenda. 5) Provide mechanisms to facilitate access to Internet2 capability. 6) Provide support for improving and developing animal research facilities and for maintaining and upgrading expensive research equipment.

X. Report from the Eighth RCMI International Symposium on Health Disparities: Dr. Shelia McClure, Health Scientist Administrator, NCRR

The Eighth RCMI International Symposium on Health Disparities held December 8-11, 2002, in Honolulu, Hawaii, featured more than 250 scientific sessions highlighting research on health disparities in cancer, cardiovascular disease, diabetes, Human Immunodeficiency Virus (HIV)/Acquired Immunodeficiency Syndrome (AIDS), asthma and autoimmunity, perinatology and reproductive biology, and neuroscience. The symposium included keynote lectures as well as plenary lectures in each of the health disparity areas.

As reported, increasing numbers of failures with Highly Active Antiretroviral Therapy (HAART) in HIV-infected Puerto Ricans is due to increased primary and secondary HIV antiretroviral resistance mutations (Universidad Central del Caribe). Additionally, researchers at the University of Hawaii, John A. Burns School of Medicine have mapped lysyl oxidase-like 2 genes and identified their role as a putative tumor suppressor in colon and esophageal cancer. Furthermore, the Type I Diabetes (T1D) Genetics Consortium at Howard University has identified regions within chromosome 6p21 that play a role in susceptibility to T1D in African Americans.

Selected manuscripts from the symposium will be published in *Cellular and Molecular Biology* proceedings focusing on "National and International Health Disparities." In addition, the symposium included presentation of the first Greenwood Awards, which are given biennially to a scientist in recognition of research excellence involving minority health issues and/or a research administrator for long-time meritorious service to minority institutions. The awards are named in honor of the late Dr. Frederick C. Greenwood, who worked actively to increase the ranks of minority scientists and promote research on health issues that affect ethnic minorities. The Greenwood Award for Service Excellence was presented to Dr. Sidney McNairy, Jr., Director of NCRR's Division of Research Infrastructure, for his contributions to the RCMI program. The

Greenwood Award for Research Excellence was presented to Dr. Gillian Bryant-Greenwood, a molecular endocrinologist at the University of Hawaii at Manoa.

NCRR acknowledges the local organizing committee at the University of Hawaii, John A. Burns School of Medicine, as well as the NIH Office of Extramural Research, National Eye Institute, National Institute of Allergy and Infectious Diseases, National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institute of Child Health and Human Development, National Institute on Drug Abuse, National Institute of Neurological Disorders and Stroke, National Center for Complementary and Alternative Medicine, National Center on Minority Health and Health Disparities, and the Office of AIDS Research for their participation in the pre-symposium grantsmanship workshop and the symposium.

XI. Progress Report on the Mutant Mouse Resources: Dr. Muriel Davisson, Senior Staff Scientist, The Jackson Laboratory

Dr. Davisson described the current status of and future needs for mouse resources. The development of new mouse strains has escalated exponentially in the 20 years since the first genetically engineered mice were produced. In the first 70-80 years of the last century, a few thousand mouse strains were produced. Now, thousands a year are being created by genetic engineering or large-scale mutagenesis.

Efficiently managing and distributing high health quality, genetically defined mice requires centralized facilities. The process of transferring mice into such centers is complex and multifaceted. It includes selecting and acquiring strains, breeding, handling intellectual property rights issues, managing databases and resource operations, and providing customer and technical support services. The Jackson Laboratory currently manages these activities, serving as the Informatics Coordinating Center of the four Mutant Mouse Regional Resource Centers (MMRRC). The Jackson Laboratory and the MMRRCs are all funded by NCRR.

The next major advance in managing mouse resources requires an emphasis on technology, rather than facilities, development. Researchers need innovative new approaches to archiving and distributing mice. These would include: 1) continued improvements in embryo and sperm cryopreservation and recovery, 2) assisted reproduction, and 3) more support of recovery facilities and training in embryo recovery technology to enable local embryo recovery. Through real partnering and networking, centers can share these responsibilities. To enure the continuous and successful operation of the MMRRCs, researchers need to pursue a broader base of funding from non-NCRR/NIH institutes and non-NIH organizations.

XII. Priorities and Action Items for NIH: Dr. Elias Zerhouni, Director, NIH

Dr. Zerhouni began by thanking the members of the Council for their contributions to NIH. He said that one of NIH's greatest assets is the "volunteers" who give their time

and energy to make NIH a stronger institution. The contributions made by the various Councils and others are unequaled in comparison to other government agencies.

Dr. Zerhouni went on to discuss his "Strategic Roadmap" exercise–defining the compelling directions that will move NIH forward and their strategic implications. As part of the exercise, he said he had called on members of the intramural and extramural communities to help identify the priorities and actions that NIH should take in the next three to five years. The topics identified include: access to research resources; creation of revolutionary methods of research; mastering complex biological systems; re-engineering clinical research; and developing the multidisciplinary scientific team of the future.

He said that NIH also would continue to address health disparities, the disproportionate burden of illness among the minority populations. Dr. Zerhouni emphasized the importance of focusing on prevention and behavioral research.

He concluded by discussing the importance of attracting and retaining young scientists. Dr. Zerhouni said his greatest concern is "renewing the energy of research" to the new generation of scientists. He believes this issue will drive the research system more than any budget, any space, any resource, or any equipment need. It is a priority for the research community.

XIII. Update of BIRN Activities: Dr. Mark Ellisman, Professor, Department of Neurosciences and Director, Center for Research in Biological Structure, University of California, San Diego

Dr. Ellisman provided an update on the development of the Biomedical Informatics Research Network (BIRN). The objectives are to establish a stable, high-performance network–built upon existing Internet2 and NSF-supported infrastructure–capable of quickly moving large amounts of data between sites across the country; creating federated databases related to the BIRN scientific testbeds; developing software to find, compare, and analyze complex neurological imaging data; and ensuring regulatory compliance without inhibiting collaboration. Dr. Ellisman and his team at the University of California, San Diego (UCSD) serve as the coordinating center for the project.

As part of his update, Dr. Ellisman described how the coordinating center had recently selected and installed equipment at the sites, and then trained representatives at each location on its use. The coordinating center also is responsible for continuous monitoring of the BIRN sites.

The network currently consists of three components:

The Mouse BIRN, which includes activities at Duke University, University of California, Los Angeles, California Institute of Technology, and UCSD, is examining mouse models of multiple sclerosis and schizophrenia. A model of Parkinson's disease was recently added.

The Brain Morphology BIRN consists of two research groups at Harvard Medical School, one at Duke University, one at Johns Hopkins University, and one at UCSD. The clinical specific aims of this component are to determine if there are structural differences that correlate with specific symptoms such as memory dysfunction and depression.

The Functional MRI component, which includes 11 sites, is just getting started, but its focus will be on the study of schizophrenia.

Dr. Ellisman described how the infrastructure being put into place for these three testbeds will facilitate addressing fundamentally different kinds of scientific questions by allowing integration of data from multiple biological scales and diffuse patient populations. Data acquisition, analysis, and visualization will lead to discovery by making use of the diverse techniques and expertise distributed around the country that are represented in these testbeds.

He concluded by describing how the BIRN was designed to scale from the onset, and how it is imperative that new participants be allowed to join the network in a cost-effective manner. The BIRN Coordinating Center is busy defining best practices for processes ranging from deploying networking infrastructure to meeting HIPAA requirements for shared data in order to pave the road for the next generation of participants. BIRN must be able to support the work of tens of thousands of researchers in ten years.

XIV. BioGrid Activities in Europe: Dr. Michael Marron, Director, Division of Biomedical Technology, NCRR

Dr. Marron presented a summary of BioGrid activities being undertaken or planned in Europe and provided examples of a few projects that have begun to exploit grid technologies. He noted that the NCRR-funded Biomedical Informatics Research Network (BIRN) was being used by many investigators in Europe as a model for projects they are planning.

The European BioGrid will make some use of data grids but is primarily focused on providing biologists an interface to high-performance computing for applications where it is most needed. Initial applications will focus on modeling of molecular structure and dynamics with simplified access to relevant biomolecular databases. An important characteristic of the BioGrid vision is that it encompasses the entire process of the data flow, from acquisition through the processing and refinement, to deposition, curation, and–ultimately–query, discovery, and publication with support for a potentially diverse set of collaborators including researchers, students, clinicians, and drug developers.

NCRR leadership in this area of research has been beneficial for Europeans and Americans alike.

XV. Compliance with Inclusion Guidelines: Dr. Louise Ramm, Deputy Director, NCRR

Dr. Ramm outlined NIH's policy and NCRR's compliance with the requirement under the 1993 Revitalization Act to include appropriate numbers of women and members of ethnic and minority groups in all clinical trials. As part of the implementation of the Act, each NIH institute's or center's advisory council is required to prepare a biennial report describing how the institute has complied with this provision of the Act. Dr. Ramm presented a synopsis of NCRR's compliance with the inclusion guidelines. Council approved NCRR's compliance and the report process.

XVI. Council Operating Procedures: Dr. Louise Ramm, Deputy Director, NCRR

Dr. Ramm reported that NCRR is required to review the Council's operating procedures in February of each year. Council members received a copy of the operating procedures prior to the meeting. No changes in the operating procedures were needed. Therefore, with unanimous concurrence from the Council, the procedures will remain in effect until January 2004, unless revisions become necessary before then.

XVII. Developing and Improving Institutional Animal Resources: Dr. Sidney McNairy, Director, Division of Research Infrastructure, NCRR

The Division of Research Infrastructure (DRI) in FY 2002 made competitive grant awards totaling $8.9 million to support animal facilities improvement projects.

Managed by the DRI since 1991, the AFIP has set forth objectives to upgrade animal facilities that support the conduct of Public Health Service funded biomedical and behavioral research and to assist institutions in complying with the USDA Animal Welfare Act and DHHS policies related to care and use of laboratory animals. Specifically, the AFIP makes awards up to $700,000 in Federal funds and requires a dollar-for-dollar institutional non-Federal match. Up to $200,000 of the $700,000 may be used for the purchase of moveable equipment or the entire $700,000 may be used for renovation of facilities and purchases of fixed equipment.

At two previous meetings, the Council exempted the National Primate Research Centers and minority graduate and health professional schools from the dollar-for-dollar non-Federal matching requirement. To increase the flexibility of the AFIP, two recommendations were presented to members of the Council and unanimously approved: 1) eliminate the matching requirement for all AFIP applicants and 2) remove the previous $200,000 moveable equipment maximum limit, thereby allowing the entire $700,000 to be used for the purchase of moveable equipment or for renovations only; the applicant has flexibility in requesting funds that address the institution's needs.

CLOSED SESSION

This portion of the Council meeting was closed to the public in accordance with the determination that it was concerned with matters exempt from mandatory disclosure under Sections 552b(c)(4) and 552b(c)(6), Title 5, U.S. Code and Section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. Appendix 2).

Council members discussed procedures and policies regarding voting and confidentiality of application materials, Committee discussions, and recommendations. Members absented themselves from the meeting during discussion of and voting on applications from their own institutions, or other applications in which there was a potential conflict of interest, real or apparent. Members were asked to sign a statement to that effect.

XVIII. Application Review

Council considered 275 applications, for the total amount of $114,576,817

ADJOURNMENT

The Council adjourned at 3:00 p.m. on January 23, 2003.

CERTIFICATION

We hereby certify that, to the best of our knowledge, the foregoing minutes and supplements are accurate and complete.

/s/ 03/14/2003
Judith L. Vaitukaitis, M.D. Date
Chair, National Advisory Research Resources Council
and
Director, National Center for Research Resources, NIH

/s/ 03/11/2003
Louise E. Ramm, Ph.D. Date
Executive Secretary, National Advisory Research Resources Council
and
Deputy Director, National Center for Research Resources, NIH

These minutes will be formally considered by the Council at its next meeting; corrections or notations will be incorporated into the minutes of that meeting.

Attachment:

Council Roster

NOTE: Open Session materials are available from the Executive Secretary or the Committee Management Office, NCRR.