NIH GUIDE

for **GRANTS**

and CONTRACTS

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Vol. 6, No. 22, December 15, 1977

IN THIS ISSUE:

POLICIES AND GUIDELINES GOVERNING
RESEARCH CAREER DEVELOPMENT AWARDS (K4)

Page 1

PULMONARY SPECIALIZED CENTERS OF RESEARCH IN ADULT RESPIRATORY FAILURE

Applications due on or before April 3, 1978.

Page 9

REQUEST FOR RESEARCH GRANT APPLICATIONS: STUDIES OF DIABETES MELLITUS AND RELATED PROBLEMS NEI, NHLBI, NIAID, NIAMDD, NICHD, NIDR, NINCDS, NIA

Applications accepted in accordance with usual receipt dates for new applications: March 1, July 1, November 1.

Page 10

MINORITY BIOMEDICAL SUPPORT DIRECTORY NOW AVAILABLE

A single free copy of a 68-page directory describing the research study projects currently under way in NIH's Minority Biomedical Support Program is available.

Page 18

TABLE OF CONTENTS FOR 1977

HAVE YOU MOVED?

If your present address differe from that shown on the address label, please send your new address to: Grants and Contract Guide Distribution Center, Division of Research Grants, NIH, Room 219, Westwood Building, Bethesda, Maryland 20014, and attach your address label to your letter. Prompt notice of your change of address will prevent your name from being removed from our mailing list.

The GUIDE is published at irregular intervals to provide policy and administrative information to individuals and organizations who need to be kept informed of requirements and changes in grants and contracts activities administered by the National Institutes of Health.

Supplements, printed on yellow paper, are published by the respective awarding units concerning new projects, solicitations of sources, and requests for proposals.

POLICIES AND GUIDELINES GOVERNING RESEARCH CAREER DEVELOPMENT AWARDS (K4)



Under the authorizations in the Public Health Service Act, Section 301(c), the Bureaus, Institutes, and Divisions (BID's) of the National Institutes of Health make Research Career Development Awards (RCDA's) to eligible institutions for support of named individuals.

I. INTRODUCTION AND EFFECTIVE DATE

This issuance updates the policies governing the Research Career Development Award (K4) of the National Institutes of Health and supersedes the policy brochure dated February 1, 1977, and the NIH Guide for Grants and Contracts, Vol. 6, No. 4, March 1, 1977. The policies stated herein are retroactive to February 1, 1977, and will affect all new and continuation applications and awards with budget period start dates of May 1, 1977, and later. The update involves primarily (1) the inclusion of the review criteria used in evaluating applications, (2) the inclusion of the policy that a Research Career Development Award application may not be pending PHS review concurrently with another PHS research career development type application which would duplicate the provisions of the Research Career Development Award, and (3) a restatement of the purpose of the award to include the provision that an award must enhance the candidate's career development.

II. PURPOSE

The NIH Research Career Development Award is a special salary grant to enhance the research capability of individuals in the formative stages of their careers who have demonstrated outstanding potential for contributing as independent investigators to health-related research. The awards are available for persons whose research potential is apparent but who need additional experience in a productive scientific environment conducive to the development of a career in independent research. The award is not intended for the untried investigator or for those already established as independent investigators. Nor is the award intended simply to substitute one source of salary support for another for an individual who is already conducting full-time research or as a mechanism for providing institutional support.

III. ELIGIBILITY

A. Nomination by Institution

Candidates must be nominated by a non-Federal public or private nonprofit institution engaged in health-related research and located in the United States or its possessions and territories.

B. Experience

Candidates must have had at least three years of relevant post-doctoral experience prior to the requested beginning date of the award. An individual who has achieved professional recognition, as evidenced by substantial independent research accomplishments, significant numbers of publications of high quality in scientific or professional journals, or the attainment of senior faculty or equivalent status is considered to have achieved the objectives of this program and to be ineligible.

C. Concurrent Applications

A Research Career Development Award application may not be pending PHS review concurrently with another PHS research career development type application which would duplicate the provisions of the Research Career Development Award. Other development awards considered to be duplicative include the research scientist development awards, special research award (young investigator awards), clinical investigator awards, academic and teacher investigator awards, and postdoctoral and special fellowships. This does not preclude the concurrent submission of a regular research project grant application.

D. <u>Citizenship</u>

Candidates for an award must be citizens or noncitizen nationals of the United States or its possessions and territories or must have been lawfully admitted to the United States for permanent residence at the time of application.

IV. REVIEW

Applications recommended for approval by the appropriate National Advisory Council will be considered for funding on the basis of the overall merit of the proposal as determined by the review committee, relevance of the proposal to the research objectives of the awarding component, and availability of funds.

In the review of applications for scientific merit, attention is given to the candidate's prior training and experience, career potential, proposed research, environment, reference reports, and other related information. The application must demonstrate that the award will enhance the candidate's development as an independent investigator.

The guidelines used by the initial review groups in evaluating applications are an appendix to this document.

V. TERMS OF THE AWARD

A. Commitment to Research

Individuals who receive salaries from RCDA's are to devote essentially full time to research and research-related activities. Such activities may include giving or receiving research training, supervising the research of others, participating in workshops and scientific or professional meetings, providing health care to the extent required to maintain clinical skills and expertise necessary for the conduct of research, and related academic activities provided these do not deter the awardee from accomplishing the purposes of the RCDA. The principal involvement must be with the actual conduct of research.

During the period of the award, the institution is expected to reduce or defer demands for teaching, service, or committee duties which would not directly contribute to the candidate's research career development.

B. Relationship to Institution

Although individuals are considered and referred to in the brochure as the awardee, awards are made to eligible institutions on behalf of qualified candidates. Each individual is directly responsible as an employee to the institution to which the award is made. Except as otherwise set out in this statement, the individual's (employee's) status, title, salary, and staff privileges are determined by the institution according to its established policies for individuals holding 12-month appointments.

C. Duration

An RCDA, which is funded annually, is limited to a single support period of five years. An award of less than five years will not be made. The award is expected to be for continuous support of an individual; except in unusual situations no break in the period of support will be permitted and then only with prior approval from the NIH awarding unit. Under no circumstances may an individual receive more than a total of five years (60 months) of RCDA support.

Annual funding of awards shall be based on an assessment by NIH staff of continued opportunity for career development as well as on a judgment of the effectiveness of the developmental experience. In addition, continuation of awards is contingent upon future Federal appropriations.

D. Termination or Change of Institution

- 1. When a grantee institution plans to terminate an award the NIH awarding unit must be notified in writing at the earliest possible time so that appropriate instructions can be given for termination.
- 2. If the individual is moving to another eligible institution, RCDA support may be continued provided:
 - a. A new application is submitted by the new institution on behalf of the individual for review by the NIH.
 - b. The period of support requested is for only the time remaining within the 60-month limitation.
 - c. The new application is submitted far enough in advance of the requested effective date to allow the necessary time for review.
- 3. The Director, NIH, may discontinue an award upon determination that the purpose or terms of the award are not being fulfilled. In the event an award is terminated, the Director, NIH, shall notify the grantee institution and the awardee in writing of this determination, the reasons therefor, the effective date, and the right to appeal the decision.
- 4. A final progress report, invention statement, and expenditure report are required upon termination of an award.

E. Special Leave

Special leave in another institution (with continuing support from the award) may be permitted if directly related to the purpose of the award. Only local institutional approval is required if such leave does not exceed three months. For a longer period, prior approval of the NIH awarding unit is required. To obtain prior approval, the awardee must submit to the awarding unit a letter describing the plan, countersigned by the awardee's department head and the appropriate institutional official. A copy of a letter or other evidence must also be submitted to assure that satisfactory arrangements have been made with the institution where the leave is to be taken.

Leave without award support requires the prior approval of the NIH awarding unit and will be granted only in unusual situations. Such leave may not exceed 12 months. Support from other sources is permissible during the period of leave, and such leave does not reduce the total number of months of program support for which an awardee is eligible.

F. Allowable Award Costs

1. Salary

The RCDA will reimburse the grantee institution for the employee's total efforts which, under the terms of the award, are to be devoted essentially to full-time research and research-related activities, but only up to a maximum base salary of \$30,000 for each budget period.

The grantee institution may supplement the awarded salary consistent with the institution's salary scale. No supplementation may be provided from Federal funds unless explicitly authorized by the program from which such funds are to be derived. In no case may other NIH funds be used as a means of additional salary support.

The total salary proposed (NIH and institutional contribution) must be based on a full-time 12-month staff appointment. It must be consistent both with the established salary structure at the institution and with salaries actually provided by the institution from its own funds to other staff members of equivalent qualifications, rank, and responsibilities in the department concerned. If full-time salaries are not currently paid to comparable staff members, the salary proposed must be appropriately related to the existing part-time salary structure.

2. Fringe Benefits

In addition to the base salary, the institution's share of contributions to finance such fringe benefits as are available to all other staff members of comparable rank and seniority at the institution, under formally established and consistently applied institutional policies, may be paid from award funds to the extent that they are consistently treated by the institution as direct rather than indirect costs. Fringe benefits may be requested only on that part of the candidate's salary paid from the award. The candidate's share of fringe benefits must be deducted from his/her salary.

Indirect Costs

Funds will be provided for the reimbursement of indirect costs at 8% of the total direct award costs or actual, whichever is less.

4. Other Costs

No costs other than those in 1, 2, and 3 above may be requested or awarded as part of an RCDA.

The RCDA is made with the expectation that research support funds will be available to the awardee during the period of the award.

5. Awards in Subsequent Years

Awards are made (funded) on an annual basis. For each subsequent year, institutions will file a continuation application requesting funds for the next year. The application forms will be mailed to the grantee institution approximately four months before the end of each current award year.

6. Salary and Fringe Benefit Increases

Appropriate salary and fringe benefits increases that occur during the period of the award will be reimbursed by NIH consistent with the maximum NIH salary reimbursement of \$30,000 and the availability of funds. If the exact date and amount of a future increase is known, it should be requested and justified in the noncompeting continuation application (Type 5). If increases otherwise occur during a current budget period, the grantee institution must provide appropriate documentation to the NIH awarding unit who will, if justified, make such adjustment by a revised or supplemental award. All increases must be based on consistently applied established institutional policy and with salaries and fringe benefits actually provided by the institution from its own funds to other staff members of equivalent qualifications, rank, and responsibilities in the department concerned.

G. Other Income

1. a. Generation and Disposition of Professional Fees

Fees resulting from clinical practice, professional consultation, or other comparable activities required by the research or research-related activities of the award may not be retained by the RCDA supported individual. Such fees must be assigned to the grantee institution for disposition by any of the following methods:

(1) The funds may be expended by the grantee institution in accordance with the NIH policy

on supplementation of salaries of Awardees and to provide fringe benefits in proportion to such supplementation. Such salary supplementation and fringe benefit payments must be within the established policies of the grantee institution.

- (2) The funds may be used for health-related research purposes.
- (3) The funds may be paid to miscellaneous receipts of the U.S. Treasury. Checks should be made payable to the Department of Health, Education, and Welfare, National Institutes of Health, and forwarded to the Director, Office of Financial Management, NIH, Bethesda, Maryland 20014. Checks must identify the relevant award account and reason for the payment.

b. Records and Cost Sharing

Adequate records regarding the receipt and disposition of fees and other income will be maintained by the grantee institution and will be available for review upon request by appropriate auditors.

Expenditure of such income will not be allowed in meeting cost sharing or matching requirements for any NIH-supported program.

2. Other Professional Income

The term professional fees in this policy statement does not apply to royalties, honoraria, and income from scholarly writing, delivery of occasional outside lectures, and service in advisory capacity to public or private nonprofit organizations. This income, if within grantee institution policy, may be retained by the awardee.

H. Use of NIH Grant Funds Freed by the RCD Award

Funds budgeted in an NIH-supported research or training grant for an individual's salary and/or fringe benefits, but freed as a result of funding an RCDA for that individual may not be used for any other purpose except when the individual no longer participates in the grant-supported activity and another individual replaces him/her and requires comparable remuneration. Only under highly unusual circumstance will consideration be given to approval for use of released funds for any other reason than the one described above. Any proposed retention of funds released in this manner must receive prior written approval of the NIH awarding unit. It is incumbent upon the awardee to inform the NIH of any and all research or training salary support freed by an RCDA.

Page Eight

I. General Terms and Conditions of RCDA's

Except as otherwise set out in this statement, the provisions of the *PHS Grants Policy Statement* are applicable to the NIH Research Career Development Program.

VI. DATES FOR RECEIPT OF APPLICATIONS

Applications received at the NIH by the following dates will be reviewed during the months indicated and candidates will be notified of the results shortly after the Council meetings.

Applications received by	Study Section Meeting	Council Meeting	Earliest probable beginning date
February l	June	Sept/Oct	December 1
June 1	Oct-Nov	Jan/Feb	April 1
October 1	Feb-March	May	July 1

Application material may be obtained by writing to: Office of Grants Inquiries, Division of Research Grants, National Institutes of Health, Bethesda, Maryland 20014. A self-addressed gummed mailing label accompanying the request will expedite handling.

GUIDELINES FOR THE EVALUATION OF APPLICATIONS FOR THE RESEARCH CAREER DEVELOPMENT AWARD

The Research Career Development Award (RCDA) is designed to enhance the research capability of individuals in the formative stages of their careers who have demonstrated outstanding potential for contributing as independent investigators to health-related research. The awards are available for persons whose research potential is apparent but who need additional experience in a productive scientific environment conducive to the development of a career in independent research. The award is not intended for the untried investigator or for those already established as independent investigators.

Candidates must have had three or more years of relevant postdoctoral experience prior to the proposed beginning date of the award. The application must document accomplishment in this period that demonstrates research potential; it must also present a plan for additional experience in a productive scientific environment that will foster development for a career in independent research.

Individual proposals will be evaluated on their own merits. The award is not intended as a reward to productive investigators or simply to substitute one source of salary support for another for an individual who is already conducting full-time research or as a mechanism for providing institutional support. Applications for established investigators with significant numbers of publications of high quality or persons of senior academic rank would normally be disapproved. The application must demonstrate that the award will enhance the candidate's development as an independent investigator.

CANDIDATE: The adequacy of the candidate's background is to be evaluated as a guide to future development into a creative, independent investigator. Factors to be considered include the quality and extent of past education, scientific training and research experience; the need for further research experience and/or training; evidence of superior performance, originality, independence and productivity; the quality of any independent research publications; the commitment to health-related research; and the letters of reference.

RESEARCH PLAN: The candidate's research proposal is to be evaluated for scientific merit, including independence of the investigator, originality, feasibility, adequacy of design and plans for analysis and evaluation of data. Plans for the candidate's further professional development should also be considered.

ENVIRONMENT: The adequacy of the environment for the candidate's research career development should be evaluated in terms of the availability of space and equipment resources, facilities, technical assistance and opportunities for critical professional interaction with senior colleagues as pertinent to the proposed research plan and any other development plans. The application must clearly identify and describe the research support funds that will be available to the candidate during the period of the award.

The institution is expected to permit the candidate to spend essentially full time in the actual conduct of research and research-related activities and, accordingly, be willing to reduce or defer demands for teaching, service or committee duties which would not directly contribute to the candidate's research career development.

BUDGET AND TIME: Changes in the budget and years requested should not be recommended. The award is for a single support period of five years at a salary (up to a maximum of \$30,000 per annum) consistent with the policy of the sponsoring institution.

PULMONARY SPECIALIZED CENTERS OF RESEARCH

IN ADULT RESPIRATORY FAILURE



The Division of Lung Diseases, National Heart, Lung, and Blood Institute invites national competition for grants to support Pulmonary Specialized Centers of Research (SCOR) in Adult Respiratory Failure.

The clinical focus of this SCOR must be on adult respiratory distress syndrome that is associated with such conditions as trauma, fat embolism, drowning, aspiration, drug overdose, sepsis, pneumonia, and other acute illnesses. The SCOR will not support investigations of acute respiratory failure that results from progression of such chronic pulmonary disorders as asthma, chronic bronchitis, and emphysema, in which prolonged pulmonary damage and respiratory insufficiency precede acute respiratory failure.

Although the long-range objectives of this SCOR program are to improve diagnosis and therapy and, ultimately, to prevent onset of adult respiratory distress syndrome, it is now well accepted that the research approach to these ends should be through better understanding of underlying mechanisms. The SCOR should be planned to draw upon knowledge gained from fundamental investigations and focus on clinical studies of the natural history of the disease, its diagnosis, and treatment.

Interested applicants should request the detailed program announcement, "NHLBI-DLD-78-G-D" from:

Lynn H. Blake, Ph.D. Chief, Interstitial Lung Diseases Branch Division of Lung Diseases National Heart, Lung, and Blood Institute Room 6A03, Westwood Building Bethesda, Maryland 20016

Telephone: (301) 496-7034

Completed applications will be due on or before April 3, 1978.

REQUEST FOR RESEARCH GRANT APPLICATIONS:

STUDIES OF DIABETES MELLITUS AND RELATED PROBLEMS



NATIONAL EYE INSTITUTE
NATIONAL HEART, LUNG, AND BLOOD INSTITUTE
NATIONAL INSTITUTE OF ALLERGY AND
INFECTIOUS DISEASES
NATIONAL INSTITUTE OF ARTHRITIS, METABOLISM,
AND DIGESTIVE DISEASES
NATIONAL INSTITUTE OF CHILD HEALTH AND
HUMAN DEVELOPMENT
NATIONAL INSTITUTE OF DENTAL RESEARCH
NATIONAL INSTITUTE OF NEUROLOGICAL AND
COMMUNICATIVE DISORDERS AND STROKE
NATIONAL INSTITUTE ON AGING

The above-named Institutes of the National Institutes of Health invite applications for research grants in the general area of diabetes mellitus and related problems.

I. PROGRAM SPECIFICATIONS

A. Program Objectives

Diabetes mellitus is a major public health problem in the United States today. In recognition of this, the National Commission on Diabetes recommended an expanded national research effort in basic and clinical research into the cause, cure, and prevention of diabetes mellitus and related endocrinologic and metabolic disorders. It is anticipated than additional funds will be appropriated for the support of these activities.

B. Research Scope

The emphasis of this solicitation is upon research in both diabetes and in diabetes-related activities. Activities identified as being related to diabetes generally fall into one of the following categories:

- 1. Projects directly concerned with diabetes;
- Projects directly concerned with a diabetes-related endocrine, metabolic, or vascular disorder;
- 3. Projects directly concerned with the prevention, natural history or treatment of a specific organ system disorder caused by diabetes; and
- 4. Projects which are not directly concerned with diabetes but which could reasonably be expected to contribute to the diagnosis, treatment, cure, or prevention of diabetes or a diabetes-associated disorder.



Page Seventeen

National Institute of Arthritis, Metabolism, and Digestive Diseases (continued)

Diabetes Program Director, Clinical and Physiological Studies NIAMDD Extramural Programs Room 626, Westwood Building Bethesda, Maryland 20014

Telephone: (301) 496-7348

National Institute of Child Health and Human Development

Director, Center for Research for Mothers and Children NICHD Room C703, Landow Building Bethesda, Maryland 20014

Telephone: (301) 496-5097

National Institute of Dental Research

Special Assistant for Program Coordination NIDR Extramural Programs Room 507, Westwood Building Bethesda, Maryland 20014

Telephone: (301) 496-7748

National Institute of Neurological and Communicative Disorders and Stroke

Neurological Disorders Programs NINCDS Extramural Programs Room 710, Federal Building Bethesda, Maryland 20014

Telephone: (301) 496-1432

National Instituté on Aging

Associate Director for Extramural and Collaborative Research Programs
NIA
Room 5C21, Building 31
Bethesda, Maryland 20014

Telephone: (301) 496-5534

Dur/19

MINORITY BIOMEDICAL SUPPORT

DIRECTORY NOW AVAILABLE



A 68-page directory describing the research study projects currently under way in NIH's Minority Biomedical Support Program (MBS) has been published and is available free.

Titled Minority Biomedical Support Program, A Directory of the Research Projects, the booklet serves as a ready reference on the research activities and participants in the DRR-supported program.

In addition to the current complete listing of MBS grantee institutions throughout the country and Puerto Rico, the directory identifies the names of program directors, the principal investigators, the number of student investigators, and the titles and descriptions of each project involved in the biomedical research effort.

A geographical index is provided, listing grantee institutions by State and within each State, in alphabetical order according to the name of the institution.

A single free copy of Minority Biomedical Support Program, A Directory of the Research Projects may be secured by writing to the Research Resources Information Center, 1776 East Jefferson Street, Rockville, Maryland 20852, or by request from the Office of Science and Health Reports, Division of Research Resources, National Institutes of Health, Bethesda, Maryland 20014.

NIH Guide for Grants and Contracts, Cumulative Contents (continued)

Vol	ume	No.	, 6

Guide No. 1, January 7, 19

Young Environmental Scientist Health						
Research Grant Program, NIEHS						1
Minority Access to Research Careers						
(MARC) Program - Visiting Scientist Award		•	•			5
Clinical Investigator Award, NIAMDD					•	7
Programs of the National Eye Institute						
Cataracts	•	•	•	•	•	11
Clinical Applications of Psychophysical						
and Physiological Optics Techniques						13
Eye Diseases Associated with Diabetes Mellitus	•	•	•	•	•	15
Animal Models of Visual Abnormalities and Disorders	•	•	•	•	•	17
Solicitation of Comments on the Creation of a						
Bank of Mammalian DNA Fragments	•	•	•	•	•	19
		,				
Guide No. 2, January 12, 1977						
National Research Service Awards						
for Institutional Grants	•	٠	•	•	•	1
Guide No. 3, February 4, 1977						
suide No. 3, February 4, 1777						
National Institute of General Medical Sciences						
Institutional National Research Service Awards						1
Iwo Corrections to Vol. 6, No. 2, January 12, 1977					•	6
· · · · · · · · · · · · · · · · · · ·						
Guide No. 4, March 1, 1977						
Research Career Development Awards						_
Policy and Guidelines	•	•	•	•	•	1
Research Grant Applications in Pharmacology						_
Sought by the National Institute on Aging	•	•	•	•	•	7
Availability of Guidelines, National Cancer Institute					•	9
National Institute of Arthritis, Metabolism, and Digestive Di						
Diabetes Research and Training Centers						11
Multipurpose Arthritis Centers	•	•	•	•	•	13
0.44. No. 5 Month 7 1077						
Guide No. 5, March 7, 1977						
Microbial Studies of Periodontal Diseases Grant Applications						
Sought by the National Institute of Dental Research		_	_			1
Request for Research Grant Applications	•	•	•	•	-	•
Division of Heart and Vascular Diseases, NHLBI		_	_			3
Minority Hypertension Research Development Summer	•	•	•	•	-	_
Program, Division of Heart and Vascular Diseases, NHLBI		_				5
Personnel Vacancy, NHLBI		-	_			7
	•	•	•	•	~	•

Guide No. 6, March 14, 19//	
	L
Cancer Epidemiology in Collaboration with the NCI Program of Cancer <u>Surveillance</u> , <u>Epidemiology</u> , and	
End Results (SEER)	3
Guide No. 7, March 17, 1977	
MARC Honors Undergraduate Research Training Program	1
<u>•</u> =	2
Guide No. 8, March 25, 1977	
Availability of RFA: Pilot Evaluation Studies of Community High Blood Pressure Control in Two	
	L
	4
Guide No. 9, April 26, 1977	
· · · · · · · · · · · · · · · · · · ·	L.
	L
	2
Malocclusion Research Grant Applications Sought	_
•	3
Availability of NIH Grants Peer Review	_
Study Team Recommendations)
Availability of Guidelines - Institutional	
Programs in Interdisciplinary Research	
Supported by the Center for Population Research,	_
National Institute of Child Health and Human Development 13	3
Diabetes Research and Training Centers,	
Announcement and Supplemental Guidelines October 3, 1977, Submission Date	=
National Cancer Institute's Construction Program	
Macional Cancer Institute's construction riogram	,
Guide No. 10, May 18, 1977	
	L
	5
· · · · · · · · · · · · · · · · · · ·	5
Compensation of Injured Research Subjects	
	7
Pulmonary Academic Award	
Special Dental Research Award	3

Guide No. 11, June 3, 1977				
Special Grants for New Investigators in Trauma and Burn Research, National Institute of General Medical				1
Sciences		•	•	1
of General Medical Sciences				6
National Heart, Lung, and Blood Institute	•	•	•	7
Guide No. 12, June 28, 1977				
Availability of Biotechnology Resources Directory,				1
Division of Research Resources				2
Conflict of Interest				3
National Research Service Awards for Individual Postdoctoral Fellowships, National Institute of	•	•	•	,
Environmental Health Sciences				3
Young Investigators Research Grants, National Cancer Institute				5
Specialized Clinical Research Centers for Periodontal Disease	•	•	•	7
Guide No. 13, July 1, 1977				
Descriptions of NIH Collaborative Programs	•	•	•	1
Guide No. 14, July 15, 1977				
Neural Regeneration and Plasticity Research, National Institute of Neurological and				
Communicative Disorders and Stroke	•	•	•	1
National Institute of Environmental Health Sciences NIH's Policy and Procedures on Submission and	•	•	•	2
Acceptance of Revised Reports of Expenditures	•	•	•	7
Guide No. 15, August 10, 1977				
Special Research Awards,				
National Institute on Aging		_	_	1
Request for Applications in Studies on Nutrition in Relation to Health of the Aged and Aging Processes	•	•	•	
Construction Grant Applications, National	•	•	•	4
Cancer Institute	•		•	5
Research Fellowships to Sweden and Switzerland	•	•	•	5

Guide No. 16, August 17, 1977	
Programs of the National Institute of Arthritis, Metabolism, and Digestive Diseases Diabetes Research and Training Centers	1
Multipurpose Arthritis Centers	2
Core Center Grants	4
Guide No. 17, September 7, 1977	
National Conference on Clinical Trials Methodology	1 2
MARC Honors Undergraduate Research	,
Training Program	4 5
Publication Distribution	5
Guide No. 18, September 30, 1977	
Individual Postdoctoral Fellowships,	
National Institute on Aging	1
National Institute of Environmental Health Sciences,	_
Academic Investigator Award - Toxicology	2
Immunologic Diseases	5
Request for Applications (RFA): Infant Nutrition	9
NIH Highlights	15
Guide No. 19, October 17, 1977	
Biological Safety (P3) Facilities Grants	
for Recombinant DNA Research	1
Coma Research, National Institute of Neurological and Communicative Disorders and Stroke	2
DNA Recombinant Research	3
Senior International Fellowships	9
Denier international retroubules of the territorial residence in the second re	
Guide No. 20, November 14, 1977	
National Research Service Awards for	
Institutional Grants	1
Extramural Associates Program	7
RFA: Centers for Interdisciplinary Research	^
on Immunologic Diseases	9

NIH Guide for Grants and Contracts, Cumulative Contents (continued)

Guide No. 21, December 1, 1977

Request for Applications for Special			
Initiative Grants for Research on Aging			1
Grant Applications on Pulmonary Ciliary Structure			
and Function Sought by the Division of Lung			
Diseases, National Heart, Lung, and Blood Institute			5
Grant Applications on Membrane Transport in			
the Lung Sought by the Division of Lung Diseases,			
National Heart, Lung, and Blood Institute			6
Research Grant Applications Sought for In Vitro			
Responses of the Lung to Pathogenetic Substances			7
Nondiscrimination on the Basis of Handicap			8
False Statements			8
Nonhuman Primates Available			8
Animal Resources Directory Now Available			9
Manpower Development Programs in Diabetes,			
Endocrinology, and Metabolic Diseases			11
Special Emphasis Research Career Award,			
NHLBI and NIAMDD			12
Revision of Guidelines, Cancer Control Program			
Copyright Policy, Notice to All Grantees			
NIH Peer Review Process Articles Available			
1001 107201 1100000 111010101 1111111111			
Guide No. 22, December 15, 1977			
odrac No. 22, December 13, 2277			
Policies and Guidelines Governing Research			
Career Development Awards (K4)			1
Pulmonary Specialized Centers of Research	•	•	_
in Adult Respiratory Failure		_	g
Request for Research Grant Applications:	•	•	•
Studies of Diabetes Mellitus and Related Problems,			
NEI, NHLBI, NIAID, NIAMDD, NICHD, NIDR, NINCDS, NIA		_	10
Minority Biomedical Support Directory Now Available			18
itimit by blomeacach bupport but ecolig now invalidate	- •	-	