NIH GUIDE

for GRANTS

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

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INSTITUTIONAL GRANTS FOR NATIONAL RESEARCH SERVICE AWARDS FOR RESEARCH TRAINING

ANNOUNCEMENT

The provisions of this announcement are subject to any changes which may be necessary as a result of Congressional action on pending legislation extending basic authorization for the program. Such awards will be contingent upon availability of funds.

Under authority of Public Law 93-348, National Research Act, the National Institutes of Health (NIH) will award grants to eligible institutions to develop or enhance research training opportunities for individuals selected by them who are interested in careers in specified areas of biomedical and behavioral research. (See Attachment One)

Domestic nonprofit private or non-Federal public institutions may apply for grants to support training programs in specified areas of research from which a number of awards will be made to individuals selected by the institution and the program director. Pre- and postdoctoral trainees may be supported if either or both level(s) of training are justified and approved in the application. The applicant institution must have, or be able to develop, the staff and facilities required for the proposed programs. The training program director at the institution will be responsible for the selection and appointment of trainees to receive National Research Service Awards and for the overall direction of the program.

The proposed program must encompass supervised biomedical research training in the specified areas, and offer opportunity for research training leading toward the research degree, or, in the case of research health scientists, research clinicians, etc., to broaden their scientific background. National Research Service Awards (NRSA) are not made for study leading to the M.D., D.O., D.D.S., or other similar professional degrees. Neither will these awards support non-research clinical training.

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

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.

Application material Application materials may be obtained from the Grants Inquiries Office, Division of Research Grants, National Institutes of Health, Bethesda, Maryland 20014. If a self-addressed gummed mailing label is enclosed in the request for kits, it will expedite handling.

Applications received by Results announced by

January 2

June

The NIH reserves the option of rejecting without further review all or part of an application that in its judgment does not fall within the specified areas of research that are currently being supported or for which support of predoctoral training is not offered. Institutions contemplating submission of an application including <u>predoctoral</u> training should contact the appropriate person shown on the list of research areas. (See Attachment One)

Review and selection NRS grant applications will be evaluated by initial peer review groups at the NIH and are also subject to review and approval of the appropriate advisory council of the NIH whose activities relate to the research training proposed. The application will be evaluated on the basis of records and qualifications of participating faculty, the proposed research training objectives and program design, previous training record of the program and its ability to attract high caliber students, institutional commitment, facilities and environment, and relationship of the proposed program goals to need for research training in NIH program areas.

GENERAL PROVISIONS

Eligibility requirements Individuals appointed as trainees on the grant must be citizens or non-citizen nationals of the United States, or have been lawfully admitted to the United States for permanent residence and have in their possession a permanent visa at time of appointment. A non-citizen national is a person who although not a citizen of the United States, owes permanent allegiance to the United States. They are generally persons born in lands which are not States, but which are under United States sovereignty, jurisdiction, or administration (e.g., American Samoa). Individuals on temporary or student visas are not eligible.

Predoctoral trainees must have received an appropriate baccalaureate degree as of the date of appointment to the approved training program. An individual at the postdoctoral level must have received as of the date of appointment to the approved training program, a Ph.D., M.D., D.D.S., D.O., D.V.M., O.D., Sc.D., D.Eng., D.N.S., or equivalent domestic or foreign degree.

Stipends and other training costs Stipends and allowances requested will be in accordance with the following: For predoctoral, an annual stipend of \$3,900 for individuals at all levels.

For postdoctorals, the stipend level is determined by the number of years of prior relevant postdoctoral experience. Relevant experience may include research experience (including industrial), teaching, internship, residency, or other time spent in full-time pursuit of additional degrees or full-time studies in a health-related field at a level beyond that of the qualifying doctoral degree.

Tuition and travel may be requested. There is no allowance for dependents.

Years of Relevant Experience at Entry	Year of Award		
	1st Year	2nd Year	3rd Year
0	\$10,000	\$10,400	\$10,800
1	10,800	11,200	11,600
2	11,500	11,900	12,300
3	12,200	12,600	13,000
4	12,800	13,200	13,600
5 or more	13,200	13,600	14,000

Postdoctoral Stipends

Stipend supplementation from non-Federal funds is permitted. Other Federal funds may be used for supplementation only if authorized by the program from which such funds are derived.

In addition to the stipends and allowances for the trainees, the institution may request up to 25% of the total award for other related costs (salaries, equipment, supplies, etc.) which are deemed essential to carry out the program of training for the National Research Service Awardees appointed under the grant. Actual indirect costs or 8% of allowable direct costs, whichever is less, may also be requested.

<u>Period of support</u> Awards for institutional grants may be made for project periods of up to 5 years. However, no individual may receive more than three years of support in the aggregate from a National Research Service Award. Any exception to this requires a waiver from the Agency head based on review of justification from the trainee and the grantee institution.

Conditions of award No trainee will be appointed unless a signed Payback Agreement has been submitted indicating his or her intent to meet the service or payback provisions required under the law as a condition under which a National Research Service Award is made and accepted. Trainee appointments are made for full-time research training and research. Trainees may utilize some of their time in academic studies and clinical duties if such work is closely related to their research training experience.

A NRSA recipient may not hold another Federally sponsored fellowship or training award concurrently with a National Research Service Award. A research trainee may, however, accept concurrent educational remuneration from the Veterans Administration (e.g., G.I. Bill) and loans from Federal funds.

Upon completion of the program, recipients of NRS Awards are required to engage in biomedical research or teaching for a period equal to the period of support. Alternatively, if the Secretary, DHEW, determines there are no suitable health research or teaching positions available to the individual. the following may be authorized: (1) If the individual is a physician. dentist, nurse, or other individual trained to provide health care directly to patients, the Secretary may authorize (a) service in the National Health Service Corps, (b) service in his or her specialty in a geographic area designated by the Secretary, or (c) service in the specialty in a health maintenance organization serving a medically underserved population. (2) If the individual who received the NRS Avard is not trained to provide health care to patients, the Secretary may authorize the individual to engage in some other health-related activity. For each year for which an individual receives a NRS Award he or she shall (a) engage in twelve months of health research or teaching, (b) serve twelve months as a member of the National Health Service Corps, or (c) if authorized by the Secretary for one of the other alternatives, shall serve twenty months for each year of award.

For individuals who fail to fulfill their full service obligation the United States is entitled to recover an amount equal to the stipend received from the NIH plus interest in accordance with a formula which gives one-half credit to months actually served in the computation of the payback debt.

The Secretary shall by regulation provide for the waiver or suspension of any payback obligation to an individual whenever compliance by the individual is impossible or would involve extreme hardship to the individual and if enforcement of the individual's obligation would be against equity and good conscience.

Trainees are not entitled to vacations, as such, although those at academic institutions may take the holidays at Christmas, in the Spring, etc., and the short period between semesters or quarters. The time between a summer session and a fall semester is considered an active part of the training period. Those at non-academic institutions are entitled to the normal holiday and vacation periods of the institution.

<u>Taxability of stipends</u> NIH takes no position on the taxability or non-taxability of National Research Service Award stipends. Recipients of the NRS Award stipend are advised to consult local, State, and Federal revenue services.

Notification of final action The applicant will be notified by the awarding unit of the final action on the application by either an award notice or by a letter.

NATIONAL RESEARCH SERVICE AWARDS FOR INDIVIDUAL POSTDOCTORAL FELLOWS

ANNOUNCEMENT

The provisions of this announcement are subject to any changes which may be necessary as a result of Congressional action on pending legislation extending basic authorization for the program. Such awards will be contingent upon availability of funds.

Under authority of Public Law 93-348, National Research Act, the National Institutes of Health (NIH) provides National Research Service Awards to postdoctoral individuals for training experiences in specified areas of biomedical and behavioral research. (See Attachment Two)

Awards are made to individual applicants, for specified training proposals, selected as a result of a national competition.

Eligibility requirements Applicants must be citizens or non-citizen nationals of the United States, or have been lawfully admitted to the United States for permanent residence and have in their possession a permanent visa at time of application. Non-citizen nationals are persons who although not citizens of the United States, owe permanent allegiance to the United States. They are generally persons born in lands which are not States, but which are under United States sovereignty, jurisdiction, or administration (e.g., American Samoa). Individuals on temporary or student visas are not eligible.

As of the beginning date of the proposed fellowship, an applicant must have received a Ph.D., M.D., D.D.S., D.O., D.V.M., O.D., Sc.D., D.Eng., D.N.S., or equivalent domestic or foreign degree. Applicants must apply in one of the research discipline areas specified by NIH. (See Attachment Two) Proposed study must encompass biomedical research training with an opportunity to carry out supervised research in the specified areas, and offer opportunity to research health scientists, research clinicians, etc., to broaden their scientific background, or to extend their potential for research in health-related areas. National Research Service Awards (NRSA) are not made for study leading to the M.D., D.O., D.D.S., or other similar professional degrees. Neither will these awards support non-research clinical training.

Prior to formal submission, an applicant must arrange for appointment to an appropriate institution and acceptance by a sponsor who will supervise his or her training and research experience. Applicants may be sponsored by a domestic or foreign non-profit private or non-Federal public institution that

has the staff and facilities to provide the proposed research training in a suitable environment for performing high-quality work. Training under this program may also be undertaken at the NIH and the Alcohol, Drug Abuse, and Mental Health Administration. The major emphasis of the application should be the research training experience and broadening of scientific competence.

Under exceptional circumstances when such study and opportunity is not available at any domestic institution, an individual may request support for study abroad. Such applicant will be required to provide detailed justification based on the unique facilities and/or training opportunity that are of the nature and caliber that they cannot be found in the U.S. and the particular suitability of the foreign situation, rather than the domestic, to the proposed research.

Documents to be submitted The applicant must submit an application for the National Research Service Award and, in addition, arrange for the submission of supporting documents on his or her behalf (reference reports, facilities and commitment statement from the sponsor, etc.). Each applicant must submit a written assurance that the service or payback provision will be complied with in the event of the receipt of an award.

An individual may not have two competing applications pending review concurrently in the NIH National Research Service Individual Postdoctoral Program.

Application material Individuals are encouraged to review the eligibility criteria before requesting application kits from Grants Inquiries, Division of Research Grants, National Institutes of Health, Bethesda, Maryland 20014. If a self-addressed gummed mailing label is enclosed in the request for kits, it will expedite handling.

Applications received by Results announced by

January 2

June

Annual stipends and allowances The stipend level is determined by the number of years of prior relevant postdoctoral experience. Relevant experience may include research experience (including industrial), teaching, internship, residency, or other time spent in full-time pursuit of additional degrees or full-time studies in a health-related field at a level beyond that of the qualifying doctoral degree.

Postdoctoral Stipends

Years of Relevant	Year of Award		
Experience at Entry	lst Year	2nd Year	3rd Year
0	\$10,000	\$10,400	\$10,800
1	10,800	11,200	11,600
2	11,500	11,900	12,300
3	12,200	12,600	13,000
4	12,800	13,200	13,600
5 or more	13,200	13,600	14,000

Stipend supplementation from non-Federal funds will be permitted. Other Federal funds may be used for supplementation only if authorized by the program from which such funds are derived.

No allowance will be provided for dependents or domestic travel. Fellows affiliating with foreign sponsoring institutions will receive a single economy or coach round-trip travel fare to the training site.

Upon request, the NIH will provide funds of up to \$3,000 per 12-month period to the non-Federal sponsoring institution to help defray such expenses as tuition and fees, research supplies, equipment, faculty salary, appropriate medical insurance, travel to domestic scientific meetings, and related items. An allowance of up to \$1,000 is available for the fellow sponsored by a laboratory of the NIH/ADAMHA for domestic meeting travel expenses and appropriate medical insurance.

<u>Period of support</u> No individual may receive more than three years of support in the aggregate by a National Research Service Award. Any exception to this requires a waiver from the Agency head based on review of justification from the applicant and sponsor. Although fellowships are awarded for 12-month periods, assurances may be given by the awarding unit for continued support beyond the first year provided progress is satisfactory and funds are available.

Selection of awardees Applications will be evaluated by initial review groups at the NIH and are also subject to review and approval of the appropriate advisory council of the NIH whose activities relate to the research training under the award. The application will be evaluated on the basis of past academic and research records, the research training proposal, the sponsor and training environment, the applicant's research goals, publications, reference reports, and other relevant information. NIH program interests and the availability of funds are also considered in the final selection.

Notification of final action An applicant is notified by the awarding unit of the final action on the application by an award notice or by a letter.

Activation date An awardee has until the end of 12 months from the issue date on the award notice to activate a new award.

Conditions of award No award will be made to an individual unless that individual has signed and submitted a Payback Agreement indicating his or her intent to meet the service or payback provisions required under the law as a condition under which a National Research Service Award is made and accepted.

Fellowships are awarded for full-time research training and research. Fellows may utilize some of their time in academic studies and clinical duties if such work is closely related to their research training experience.

A NRSA recipient may not hold another Federally sponsored fellowship concurrently with a National Research Service Award. A research trainee may, however, accept concurrent educational remuneration from the Veterans Administration (e.g., G.I. Bill) and loans from Federal funds.

Upon completion of the program, recipients of NRS Awards are expected to engage in biomedical research or teaching for a period equal to the period of support. Alternatively, if the Secretary, DHEW, determines there are no suitable health research or teaching positions available to the individual, the following may be authorized: (1) If the individual is a physician, dentist, nurse, or other individual trained to provide health care directly to patients, the Secretary may authorize (a) service in the National Health Service Corps, (b) service in his or her specialty in a geographic area designated by the Secretary, or (c) service in the specialty in a health maintenance organization serving a medically underserved population. (2) If the individual who received the NRS Award is not trained to provide health care to patients, the Secretary may authorize the individual to engage in some other health-related activity. For each year for which an individual receives a NRS Award he or she shall (a) engage in twelve months of health research or teaching, (b) serve twelve months as a member of the National Health Service Corps, or (c) if authorized by the Secretary for one of the other alternatives, shall serve twenty months for each year of award.

For individuals who fail to fulfill their full service obligation the United States is entitled to recover an amount equal to the stipend received from the NIH plus interest in accordance with a formula which gives one-half credit to months actually served in the computation of the payback debt.

Fellows are not entitled to vacations, as such, although those at academic institutions may take the holidays at Christmas, in the Spring, etc., and the short period between semesters or quarters. The time between a summer session and a fall semester is considered an active part of the training period. Those at non-academic institutions are entitled to the normal holiday and vacation periods of the institution.

Taxability of stipends NIH takes no position on the taxability or non-taxability of National Research Service Awards. No deductions for income tax or social security are withheld by NIH and no annual summary of amounts paid to the fellow are provided. Recipients of the NRS Award are advised to consult local, State, and Federal revenue services.

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For additional information on the above program write: Office of Research Manpower, Division of Research Grants, National Institutes of Health, Bethesda, Maryland 20014.

For additional information concerning the specified areas of research in which applications will be accepted, write to the Institute or Division concerned at the National Institutes of Health, Bethesda, Maryland 20014.

Research Areas

The research areas in which applications will be accepted on or before January 2, 1976, are listed by awarding units. Applicants are urged to contact the individuals designated below for additional information on details of submission, particularly when predoctoral training is contemplated.

Applications should be submitted as soon as possible, preferably before the January 2 date, to permit orderly processing and review.

National Institute of General Medical Sciences

For Postdoctoral Training Grants

- 1. Basic Pathobiology
- 2. Clinical Pharmacology
- 3. Genetics (with emphasis on Medical Genetics)
- 4. Trauma and Burn Research

For Predoctoral Training Grants

- 1. Cellular and Molecular Biology
- 2. Genetics
- 3. Pharmacological Sciences
- 4. Systems and Integrative Biology
- 5. Medical Scientists Program
- Dr. Margaret Carlson (301-496-7585)

National Institute on Aging

- 1. Behavioral Sciences
- 2. Molecular and Cellular Aging
- Dr. Leroy Duncan (301-496-1033)

Division of Research Resources

- 1. Laboratory Animal Science and Medicine
- Dr. Charles McPherson (301-496-5451)

National Institute of Arthritis, Metabolism, and Digestive Diseases

Provide opportunity for (1) the clinically trained to acquire thorough grounding in scientific research, including biochemistry, biophysics, cell biology, epidemiology, genetics, physiology, and psychology; and (2) the scientifically trained to participate in biomedical research or clinical investigation relating to:

- 1. Arthritis and Orthopedics
- 2. Dermatology
- 3. Diabetes-Endocrinology-Metabolism
- 4. Digestive and Liver Diseases and Nutrition
- 5. Kidney and Urologic Diseases
- 6. Hematology
- Dr. George T. Brooks (301-496-7277)

National Institute of Neurological and Communicative Disorders and Stroke

- 1. Developmental Neurology
- 2. Neurobiology
- 3. Neuroimmunology
- 4. Neuropathology and/or Otopathology
- 5. Neurovirology
- 6. Sensory Physiology and Biophysics
- 7. Minority Programs in the Neurosciences
- Dr. Raymond Summers (301-496-7725)

National Heart and Lung Institute

- 1. Epidemiology, Biostatistics,
 Behavioral Research, Genetics,
 Nutrition, Protein Chemistry,
 and Immunochemistry and other
 multidisciplinary programs
 related to heart and vascular
 diseases
- 2. Multidisciplinary training programs in lung diseases:
 - a. Emphesema and Chronic Bronchitis
 - b. Epidemiology of Respiratory
 Diseases
 - c. Fibrotic and Immunologic
 Diseases
 - d. Pediatric Pulmonary Diseases
 - e. Pulmonary Vascular Diseases
 - f. Respiratory Failure
 - g. Structure and Function of the Lung
- 3. Blood Banking Sciences and related programs, Thrombosis, Hemophilia and Coagulation Research, and Hemoglobin Research
- Dr. Jerome Green (301-496-7416)

National Institute of Environmental Health Sciences

- Environmental Biology (mutagenesis, teratogenesis, carcinogenesis)
- 2. Environmental Epidemiology and Statistics
- 3. Environmental Pathology-Pathophysiology
- 4. Environmental Toxicology
- Dr. Edward Gardner (919-549-8411 extension 3357)

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National Institute of Child Health and Human Development

Awards provide opportunities for research training in the biological and/or behavioral science aspects of the areas listed below. Primary concern in awarding institutional awards will be given to multidisciplinary or interdisciplinary programs which cannot be provided through individual fellowships. Although major concern is for post-doctoral training, predoctoral training will be considered where a special case for support can be justified.

Research for Mothers and Children:

- Pregnancy, fetal growth, labor, and neonatal adaptation
- 2. Sudden infant death syndrome
- 3. Developmental pharmacology and developmental immunology
- 4. Nutrition; malnutrition
- 5. Language development including dyslexia
- Mental retardation and other developmental disabilities
- 7. Adolescence, puberty, and problems of physical growth
- 8. Evaluation of clinical trials

Center for Population Research:

- 1. Fertilization and reproductive biology
- 2. Human population genetics
- 3. Reproductive hormones and reproductive diseases
- 4. Neuroendocrine control of reproductive processes
- Fertility, fertility trends, population change, movement, and distribution
- 6. Population policy
- Dr. Merrill Read (301-496-5097)

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National Institute of Dental Research

- 1. Behavioral Studies*
- 2. Cariology*
- 3. Craniofacial Anomalies
- 4. Nutrition
- 5. Pain Control
- 6. Periodontal Diseases
- 7. Restorative Materials
- 8. Salivary Secretions
- 9. Soft Tissue Diseases

*Additional information sharply defining this type of training is available on request.

Dr. Robert J. Schuellein (301-496-7784)

National Eye Institute

Laboratory and clinical research training in sciences related to vision and disorders of the visual system:

- 1. Immunology
- 2. Genetics
- 3. Pharmacology
- 4. Epidemiology
- 5. Physiology and Biochemistry
- 6. Developmental Biology
- 7. Psychophysics and Physiological Optics

Dr. Samuel C. Rawlings (301-496-5301)

National Institute of Allergy and Infectious Diseases

- 1. Allergic and Immunologic Diseases, and basic Immune Mechanisms
- 2. Infectious Diseases (including Bacterial, Viral, Parasitic, and Fungal Diseases), and basic Microbiological Mechanisms

Dr. Louis Bourgeois (301-496-7820)

National Cancer Institute

Basic or clinical research training programs in one or more of the following areas:

- 1. Carcinogenesis
- 2. Chemotherapy
- 3. Drug Development
- 4. Epidemiology
- 5. Immunology
- 6. Radiation
- 7. Tumor Biology
- 8. Viral Oncology

Dr. Charles Turbyfill (301-496-7803)

The research areas, arranged by Institute, in which fellowship applications will be accepted are:

National Institute of General Medical Sciences

- 1. Anesthesiology
- 2. Basic Pathobiology
- 3. Behavioral Sciences related to Medicine (Ph.D.)
- 4. Cellular and Molecular Biology
- 5. Clinical Laboratory Sciences
- 6. Epidemiology
- 7. Genetics (including Medical Genetics)
- 8. Pharmacological Sciences
- Systems and Integrative Biology (Bioengineering and Physiology)
- 10. Trauma and Burn Research

(Support is also provided in the Medical Scientist and MARC programs.)

National Heart and Lung Institute

- 1. Epidemiology, Biostatistics, Behavioral Research, Genetics, Nutrition, Protein Chemistry, and Immunochemistry, and other multidisciplinary programs related to heart and vascular diseases.
- 2. Multidisciplinary training programs in lung diseases:
 - Emphysema and Chronic Bronchitis
 - b. Epidemiology of Respiratory
 - c. Fibrotic and Immunologic Diseases 6. Population policy
 - d. Pediatric Pulmonary Diseases
 - e. Pulmonary Vascular Diseases
 - f. Respiratory Failure
 - g. Structure and Function of the Lung
- 3. Blood Banking Sciences and related programs, Thrombosis, Hemophilia, and Coagulation Research, and Hemoglobin Research.

National Institute of Child Health and Human Development

Provide opportunity for research training in the biological and/or behavioral science aspects of the areas listed below.

Research for Mothers and Children:

- Pregnancy, fetal growth, labor, and neonatal adaptation
- 2. Sudden infant death syndrome
- Developmental pharmacology and developmental immunology
- 4. Nutrition; malnutrition
- Language development including 5. dyslexia
- 6. Mental retardation and other developmental disabilities
- 7. Adolescence, puberty, and problems of physical growth
- Evaluation of clinical trials 8.

Center for Population Research:

- 1. Fertilization and reproductive biology
- 2. Human population genetics
- Reproductive hormones and reproductive diseases
- 4. Neuroendocrine control of reproductive processes
- 5. Fertility, fertility trends, population change, movement, and distribution

National Institute on Aging

1. Biological, Behavioral, and Social aspects of aging

Division of Research Resources

1. Laboratory Animal Science and Medicine

National Institute of Dental Research

- 1. Behavioral Studies
- 2. Caries
- 3. Craniofacial Anomalies
- 4. Mineralization
- 5. Nutrition
- 6. Pain Control
- 7. Periodontal Disease
- 8. Restorative Materials
- 9. Salivary Secretions
- 10. Soft Tissue Diseases

National Institute of Arthritis, Metabolism, and Digestive Diseases

Provide opportunity for (1) the clinically trained to acquire thorough grounding in scientific research, including biochemistry, biophysics, cell biology, epidemiology, genetics, physiology, and psychology; and (2) the scientifically trained to participate in biomedical research or clinical investigation relating to:

- 1. Arthritis
- 2. Orthopedics
- 3. Dermatology
- 4. Diabetes
- 5. Endocrinology
- 6. Metabolism
- 7. Digestive Diseases
- 8. Liver Diseases
- 9. Nutrition
- 10. Kidney and Urologic Diseases
- 11. Hematology

National Cancer Institute

- 1. Carcinogenesis
- 2. Chemotherapy
- 3. Drug Development
- 4. Epidemiology
- 5. Immunology
- 6. Radiation
- 7. Tumor Biology
- 8. Viral Oncology

National Eye Institute

Laboratory and clinical research training related to vision and disorders of the visual system:

- 1. Retinal and Choroidal Disease
- 2. Corneal Disease
- 3. Cataract
- 4. Glaucoma
- 5. Sensory and Motor Disorders and Rehabilitation

National Institute of Environmental Health Sciences

- 1. Environmental Biology (Mutagenesis)
- 2. Environmental Epidemiology and Statistics
- 3. Environmental Pathology-Pathophysiology
- 4. Environmental Toxicology

National Institute of Allergy and Infectious Diseases

- 1. Allergic and Immunologic
 Diseases, and Basic Immune
 Mechanisms
- 2. Infectious Diseases (including bacterial, viral, parasitic, and fungal diseases) and Basic Microbiological Mechanisms

National Institute of Neurological and Communicative Disorders and Stroke

- 1. Audiology
- 2. Clinical Investigation
- 3. Developmental Neurology
- 4. Neuroanatomy
- 5. Neurobiology
- 6. Neurochemistry
- 7. Neuroimmunology
- 8. Neuropathology
- 9. Neuropharmacology
- 10. Neurophysiology
- 11. Neuroradiobiology
- 12. Neurovirology
- 13. Sensory Physiology and Biophysics
- 14. Speech Pathology