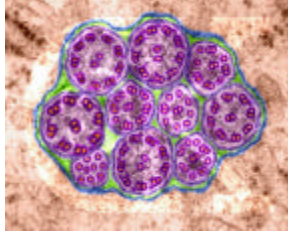


Biology



Courtesy: <http://gened.emc.maricopa.edu/bio/bio181/BIOBK/BioBookCELL2.html>

NIAID Richard A. Asofsky Scholars in Research Award

Department of Health and Human Services (DHHS)

Deadline: Continuous

Amount: The high school student supplement is not to exceed \$3,000 per student in direct costs, including supplies, for a summer experience. A part-time experience during the regular school year would be reimbursed at the same hourly rate (\$6.25). Equipment may not be purchased using these funds. Students are expected to devote sufficient effort to the research project and related activities during the period of support to gain insight into the process of scientific discovery. Support for at least three months is encouraged during any one year. This may include a mixture of full-time summer experience and part-time experience during the school year. Principal investigators are encouraged to seek minority high school students who will devote at least two years to this program (i.e., equivalent to two three-month, full-time periods). The salary for an undergraduate student should be consistent with the institution's salary policies. An additional amount of \$200 per month for supplies and travel may also be requested. Equipment may not be purchased from these funds. Students are expected to devote the equivalent of at least three months' full-

time effort to the research project and related activities in any one year and, in most cases, the period of support for any individual should last at least two years.

Abstract: The National Institute of Allergy and Infectious Diseases (NIAID), National Institutes of Health (NIH), invites applications from current NIAID grantees (principal investigators) to apply for the Richard A. Asofsky Scholars in Research (ASIR) Award. Dr. Asofsky served NIH and NIAID with distinction and energy for 37 years, a major part being spent improving research training programs. This announcement has been created to represent and honor his dedication to bringing underrepresented minorities into the biomedical sciences. The ASIR program is to provide supplemental funding to NIAID extramural principal investigators for the purpose of supporting underrepresented minority high school and college students in their research laboratories to expose them to research career opportunities in the areas of allergy, immunology, transplantation, microbiology, and infectious diseases, including AIDS. These NIAID ASIR Awards are to be used to encourage the development of underrepresented minority researchers as outlined in the NIAID Strategic Plan on Health Disparities.

An additional contact is Diane Adger-

Johnson, Division of Extramural Activities, National Institute of Allergy and Infectious Diseases, 6700B Rockledge Drive, Room 2261, Bethesda, Maryland, 20892-7610, phone +1 (301) 402-8969, fax +1 (301) 496-8729, da15a@nih.gov.

This program announcement (PA) will use the NIH grant supplement to the existing research grant of eligible principal investigators.

Contact:

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<http://grants1.nih.gov/grants/guide/pa-files/PAR-03-071.html>

Research and Development in the Area of Bio-Molecular Science and Engineering
United States Department of Defense (DOD)

Deadline: TBA

Amount: The Government anticipates award of a cost plus fixed fee term contract. The anticipated period of performance is a basic award for 12 months with 4 twelve month option periods.

Abstract: The Naval Research Laboratory (NRL) has a requirement for research and development in the area of bio-molecular science and engineering. The principle objectives of this research effort are to

- fabricate and design optical and electrode base biosensors;
- research membrane biophysical chemistry and self assembly of

microstructures for advanced materials;
- study methods of dry state preservation of blood cellular components to include in vitro testing and new materials and methods to accelerate the healing of soft and hard tissue injury including in vitro testing;

- design microwave devices, ultramicroelectrodes and electron emitters on metallized composites and patterned assembly for advanced materials using liquid crystals and colloids;

- explore selective patterning and application of biological materials (proteins, cells) on solid substrates;

- synthesize and characterize liquid crystal materials;

- investigate processes for lithography and patterning for high resolution imaging;

- use genetic engineering to research biomaterials;

- synthesize and develop novel materials for separation; and

- perform literature searches, organize and execute technical review programs, create graphics, etcetera for publishing.

An additional contact is Wilberena Cosby, contracting officer, phone +1 (202) 767-3090, fax +1 (202) 767-5896, cosby@contracts.nrl.navy.mil.

Contact:

John Booros, Contract Specialist
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Mailto: booros@contracts.nrl.navy.mil

Developing and Improving Institutional Animal Resources - NCRR

Department of Health and Human Services (DHHS)

Deadline: June 01, 2003

Amount: \$700,000. The total budget request for the improvement grant application and award is limited to \$700,000 (direct costs), of which not more than \$200,000 may be used for moveable equipment. The entire \$700,000 request may be used for renovation, repair, or modernizing the facility and no funds targeted for equipment. This is a change from past announcements Facilities and administrative costs are not provided. Matching funds from nonfederal sources are required, equal to or exceeding one-half of the total allowable costs of the requested project (\$1 federal to \$1 nonfederal). These matching funds must be applied to the specific project described in the application and cannot be met by citing other expenditures. The requirement for matching funds does not apply to Regional Primate Resource Centers (RPRCs) or to minority graduate and health profession schools. Since the nature and scope of the projects proposed in response to this PA might vary, it is anticipated that the size of an award will vary also.

Abstract: The National Center for Research Resources (NCRR) encourages the submission of individual animal resource improvement grant applications from biomedical research institutions. The major objective of this program is to upgrade animal facilities to support the conduct of Public Health Service (PHS)-supported biomedical and behavioral research. A related objective is to assist institutions in complying with the United States Department of Agriculture (USDA) Animal Welfare Act and Department of Health and Human Services (DHHS) policies

related to the care and use of laboratory animals. Support is limited to alterations and renovations (A&R) to improve laboratory animal facilities, and the purchase of major equipment items for animal resources, diagnostic laboratories, transgenic animal resources, or similar associated activities.

Contact:

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Research Facilities Improvement Program
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<http://grants.nih.gov/grants/guide/pa-files/PA-00-124.html>

Pathogenesis and Applied Genomics
World Health Organization (WHO)

Deadline: June 20, 2003

Amount: \$140,000. Research proposals with budgets up to US\$35,000 per year are invited. Projects are funded for two years, after which investigators may reapply, either for a continuation or for a new line of research.

The committee may support a limited number of multi-centre projects with budgets of up to a total of \$70,000 per annum for a maximum of two years. The project must involve disease-endemic country researchers (South-South or South-North collaborations), and must demonstrate synergy between the investigators or groups.

Abstract: The Pathogenesis and Applied Genomics Committee promotes the application of post genome activities in research on the pathogenesis of African trypanosomiasis, Chagas disease, dengue

fever, lymphatic filariasis, leishmaniasis, leprosy, malaria, onchocerciasis, schistosomiasis, and tuberculosis. The committee also supports research to promote the rapid application of genomics in the development of new drugs and diagnostics.

The committee supports cross-cutting innovative applications of functional genomics in basic research on all TDR target diseases. Research support falls under the following main areas:

- Mechanisms underlying host immunopathological and protective responses
- Potential drug or vaccine targets
- Development of proteomics and microarrays for understanding biochemical pathways for pathogen development, life cycles, virulence, drug resistance, and unique proteins produced in human hosts
- Host and parasite population genetics
- Potential targets for drugs and diagnostics, with special focus on leprosy, malaria, and tuberculosis
- Research models for the study of relevant aspects of pathogenesis
- Training and institutional strengthening in disease endemic countries in functional genomics and bioinformatics

Contact:

Dr. Ayoade Oduola, Basic and Strategic Research Manager
Committee on Pathogenesis and Applied Genomics

Special Programme for Research and Training in Tropical Diseases

World Health Organization

1211 Geneva 27

Switzerland

Phone: 41 (22) 791-3212

41 (22) 791-3789

Fax: 41 (22) 791-4854

Mailto: oduolaa@who.int

<http://www.who.int/tdr/grants/workplans/pathogen.htm>

Production and Testing of Anthrax Recombinant Protective Antigen (rPA) Vaccine

Department of Health and Human Services (DHHS)

Deadline: June 30, 2003

Amount: The award amount is unspecified. The government contemplates awarding one or more contracts for accomplishing the tasks outlined in the work statement. It is anticipated that these contracts will have two- to three-year performance periods. Abstract: The Division of Microbiology and Infectious Diseases of the National Institute of Allergy and Infectious Diseases (NIAID) has a requirement to continue advanced development and production of a vaccine to protect the general U.S. population against inhalation anthrax when administered in an immunization series of not more than three doses. This request for proposals (RFP) is intended to target vaccine candidates that can be produced at a scale to support commercial manufacturing, have demonstrated protective efficacy of the vaccine in animal models, and have already been compared and evaluated clinically with the licensed anthrax vaccine in healthy adults of both genders. Studies leading to licensure are expected to evaluate safety, develop the optimal dose and dose regimen, and extend the age range and populations for which the vaccine will be indicated. Studies proposed in response to this RFP will be those required for a licensure path and consistent with intermediate-scale manufacturing and contract timelines.

Contact:

Elizabeth J. Osinski, Contracting Officer

National Institute of Allergy and
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Phone: (301) 402-6289
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<http://grants1.nih.gov/grants/guide/notice-files/NOT-AI-03-033.html>

Ecological Rates of Change (EROC)

National Science Foundation (NSF)

Deadline: July 10, 2003

Amount: Unknown

Abstract: The Directorate for Biological Sciences (BIO) supports opportunities for funding of global change-related research on ecological systems through the Ecological Rates of Change (EROC) activity.

The purpose of EROC is to support research on how human-induced global change affects ecological rates of change. Specifically, the EROC activity seeks proposals for ecological research designed to separate the effects of natural versus anthropogenic changes on plant and animal physiological ecology, behavior, plant-animal interactions, plant or animal communities, and ecosystem processes and dynamics in terrestrial and freshwater aquatic systems.

EROC is broadly defined, recognizing the complex ways in which global change can affect and be affected by biological systems. Interactions among biota and between biota and their environment may produce unpredictable results with cascading feedbacks. EROC research projects may concentrate on rates of change in communities and ecosystems, and involve studies of community composition and gradient structure, species interactions and distributional limits, and processes such

as nutrient cycling and decomposition. These changes may occur at fine spatial scales, such as interactions between individual plants or animals, or at larger spatial scales, including habitat succession, shifts in ecotones, or regional changes in species range boundaries, distribution, and abundance. Land use changes can force plant and animal populations to respond by genetic adaptation, modifications in behavior, or physiology, migration, or extinction. These changes in species distribution and abundance may affect ecosystem structure and function. It is currently difficult to predict how ecosystem processes may be altered by the addition, subtraction, or changes in abundances, physiologies, behaviors, or composition of species, along with altered patterns of species interactions. Of particular interest to the EROC program are studies that address the relationship between, and reciprocal feedbacks among, biodiversity and ecosystem processes under various global change scenarios. For comparative studies, researchers are encouraged to use ecological research sites in networks. These networks may be new or may be existing networks. In addition to small-scale studies, EROC research might include large manipulative experiments such as carbon dioxide augmentation, soil warming, or alternative land use patterns on a landscape.

Contact:

National Science Foundation
Division of Environmental Biology
4201 Wilson Boulevard
Arlington, VA 22230
Phone: (703) 292-8480
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http://www.nsf.gov/geo/egch/gc_eroc.html

Opportunities for Ground-Based Research in Fundamental Space

Biology

National Aeronautics and Space Administration (NASA)

Deadline: July 15, 2003

Amount: Unknown

Abstract: This NASA Research Announcement solicits proposals in the following research areas: Molecular Structures and Physical Interactions, Cellular and Molecular Biology, Organismal and Comparative Biology, Developmental Biology, and Gravitational Ecology. Proposals are solicited for ground-based research investigations.

Contact:

David Liskowsky
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<http://fedbizopps.cos.com/cgi-bin/getRec?id=20030331a5>

Research Grants in Ciconiiform Biology and Conservation

Waterbird Society

Deadline: July 15, 2003

Amount: \$1,000 - \$7,000

Abstract:

The Waterbird Society offers awards for research in the science and conservation of wading birds. The goal of Research Grants in Ciconiiform Biology and Conservation is to encourage significant scientific advances in the biology, ecology, or conservation biology of wading birds (i.e., herons, storks, ibises, and their taxonomic allies).

The grants committee currently solicits proposals that focus on

- species relationships within the group; or
- the status, range, and population sizes of little-known species of Ciconiiformes.

Contact:

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Acopian Center of Conservation Learning
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Mailto: bildstein@hawkmtn.org
<http://www.mp2-pwrc.usgs.gov/cws/kfaward.htm>

Nanoscience and Nanotechnology in Biology and Medicine

Department of Health and Human Services (DHHS)

Deadline: August 18, 2003

Amount: An R21 applicant may request a project period of up to three years and a budget for direct costs of up to \$125,000 per year. The award amount for the R01 is unspecified.

Abstract: This program announcement (PA), issued as an initiative of the trans-National Institutes of Health (NIH) Bioengineering Consortium (BECON), is aimed at enhancing nanoscience and nanotechnology research approaches that have the potential to make valuable contributions to biology and medicine. Nanoscience and nanotechnology refer to research at the atomic, molecular, or macromolecular levels, at the length scale of approximately 1 to 100 nanometers. The purpose of this initiative is to stimulate cross-cutting, integrative research in these fields of science and technology. In particular, this initiative invites research on the creation and use of structures, devices, and systems that have novel properties

and functions because of their small size, that may be used to achieve a fundamental understanding of biological processes or contribute to disease detection, therapy, or prevention; conception and fabrication of devices that will effectively detect and analyze nanoscale entities of relevance to biomedicine; and the study of biological systems at the nanoscale for the explicit purpose of using that information to develop nanotechnologies and nanostructured materials that will in turn benefit biology and medicine. It is anticipated that the research projects that will be most responsive to this PA will require interdisciplinary collaborations among investigators with expertise in a range of disciplines including, but not limited to, engineering, physics, chemistry, cellular and molecular biology, and materials and computer science. Applications submitted in response to this PA may propose hypothesis-driven, discovery-driven, developmental, or design-directed research.

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<http://grants1.nih.gov/grants/guide/pa-files/PAR-03-045.html>

Daniel Giraud Elliot Medal

National Academy of Sciences (NAS)

Deadline: September 12, 2003

Amount: Unknown

Abstract: The Daniel Giraud Elliot Medal, established by gift of Miss Margaret Henderson Elliot, is awarded

by the National Academy of Sciences for meritorious work in zoology or paleontology published in a three- to five-year period.

Contact:

National Academy of Sciences
Awards Program, Room NAS 285
500 Fifth Street, NW
Washington, DC 20001
Phone: (202) 334-1602
Fax: (202) 334-1682
Mailto: awards@nas.edu
http://www4.nationalacademies.org/nas/nasaward.nsf/NominationPub/Awards_Nominations

Strategies for Germ-Line Modification in the Rat

Department of Health and Human Services (DHHS)

Deadline: October 01, 2003

Amount: Unknown

Abstract: The National Center for Research Resources (NCRR), National Cancer Institute (NCI), National Heart, Lung, and Blood Institute (NHLBI), National Institute of Child Health and Human Development (NICHD), National Institute of Neurological Disorders and Stroke (NINDS), National Institute on Aging (NIA), and National Institute on Drug Abuse (NIDA) invite applications for the purpose of establishing methods for the efficient production of rat models that contain germ-line mutations that will facilitate the transfer of biological concepts to human health problems. Development of rat embryonic stem cell (ESC) technology by modification of current techniques or development of new approaches will meet the needs of researchers using the rat to study human health and disease. This initiative is designed for rat models only and should not include human subjects or tissues.

Some illustrative examples of research topics that could be addressed under this program announcement (PA) are

- strategies for culturing pluripotent rat ESCs to allow genetic manipulation and to create rats with germ-line transmission of genetic modifications;
- development of alternative technologies to create null mutations or gene replacement in the rat;
- development of cost-effective nuclear transfer (NT) procedures in the rat;
- studies that demonstrate mutation transfer to rat stem cells or other cells for transfer into embryos or germ cells; and
- methods for targeting engineered introns into rat chromosomal DNA to support the study of gene function.

Contact:

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<http://grants.nih.gov/grants/guide/pa-files/PAR-01-077.html>

Clinical Genetics of Craniofacial and Oral Disorders

Department of Health and Human Services (DHHS)

Deadline: November 18, 2003

Amount: The NIDCR intends to commit approximately \$2,500,000 in total costs in FY 2004 or FY 2005 to fund three to four new R01 grants and five to seven new R21 grants in response to this RFA. An R01 applicant may request a project period of up to three years and a budget for direct costs of up to \$250,000 per year. An R21 applicant may request a project period of up to three years and a

budget for direct costs of up to \$125,000 per year.

Abstract: The goal of this request for applications (RFA) is to promote research that will enhance clinical genetics studies of the genes and environmental factors that cause or modify susceptibility to craniofacial, oral, and dental disorders and diseases. Currently, a major hindrance to progress in clinical genetics research has been the variation that exists between individuals with the same craniofacial disorder and the lack of consensus in the clinical community regarding phenotypic definitions. Specifically, this initiative is focused on developing well-characterized patient populations with distinct craniofacial disorders by fostering unique partnerships between clinicians and basic scientists to develop rigorous diagnostic criteria. Research studies are encouraged to refine clinical characterization, to identify diagnostic biomarkers, to establish reliable subphenotypes, and to develop standardized and comprehensive phenotypic definitions that extend to associated anomalies beyond the head and neck. Because of the interdisciplinary nature of this research, collaborative projects are encouraged among clinicians, geneticists, epidemiologists, molecular and developmental biologists, and other researchers.

Contact:

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<http://grants1.nih.gov/grants/guide/rfa-files/RFA-DE-04-004.html>

Career Awards at the Scientific Interface

Burroughs Wellcome Fund (BWF)

Deadline: May 01, 2004

Amount: \$500,000. Career Awards at the Scientific Interface provide \$500,000 over five years to support up to two years of advanced postdoctoral training and the first three years of a faculty appointment. Burroughs Wellcome Fund expects to award up to eight of these grants.

Abstract: Career Awards at the Scientific Interface are intended to foster the early career development of researchers with backgrounds in the physical/computational sciences whose work addresses biological questions and who are dedicated to pursuing a career in academic research. Candidates are expected to draw from their training in a scientific field other than biology to propose innovative approaches to answer important questions in the biological sciences.

Contact:

Burroughs Wellcome Fund
P.O. Box 13901
Research Triangle Park, NC 27709-3901
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Fax: (919) 991-5160
<http://www.bwfund.org/programs/interfaces/index.html>