

research notes

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EXTERNAL APPLICATIONS FUNDED

10-16-89 - 08-01-90

Richard Baldwin, D.O. (General and Family Practice) "Establishment of Departments of Family Medicine" Health and Human Services 09/01/90 - 08/31/91 \$182,762.

William Barrow, Ph. D. (Microbiology/Immunology) "Processing of AIDS Related Mycobacterial Antigens" NIH - NIAID 04/01/90 - 03/31/91 \$105,864.

Robert Bourdage, Ph.D. (Medical Education) "Transforming Medical Specialists into Medical Educators: The Application of Principles of Instructional Design in the Medical Education Setting" American Association of Colleges of Osteopathic Medicine 09/01/90 - 08/31/91 \$30,000.

Marilyn Brandt, Ph.D. (Physiology) "Hypertension, Angiotensin and Alpha Coronary Constriction" American Heart Association, Texas Affiliate 07/01/90 - 06/30/91 \$29,700.

Patrick Cammarata, Ph.D. (Anatomy/Cell Biology) "Mechanism of Sugar Cataract Formation in Lens Cells" NIH - NEI 07/01/90 - 06/30/91 \$167,873.

Paul Cook, Ph.D. (Microbiology) "Mechanism of the B6 Enzyme, O-Acetylserine Sulfhydrylase" NSF 05/30/1990 - 09/30/91 \$60,000.

Paul Cook, Ph.D. (Microbiology) "Determination of Kinetic and Chemical Mechanisms of Enzymes" NIH - NIGM 09/01/90 - 08/31/91 \$122,753.

Egeene Daniels, D.V.M. (Microbiology) "Continuing Medical Education Laboratory" CareFlite 11/01/89 - 10/31/90 \$200.

Michael Emmett-Oglesby, Ph.D. (Pharmacology) "Tolerance to the Stimulus Properties of Cocaine" NIH - NIDA 06/01/90 - 05/30/91 \$149,482.

Michael Emmett-Oglesby, Ph.D. (Pharmacology) "Detection of Anxiolytic and Anxiogenic Properties of DI 966" Warner Lambert Company 01/01/90 - 08/31/90 \$4,650.

Michael Emmett-Oglesby, Ph.D. (Pharmacology) "Behavioural Pharmacology Journal" CNS Publisher 12/21/89 - 12/20/90 \$500.

Michael Emmett-Oglesby, Ph.D. (Pharmacology) "Ondansetron and Cocaine" Glaxo Group Research Limited 03/01/90 - 08/31/90 \$66,366.

Michael Emmett-Oglesby, Ph.D. (Pharmacology) "Characterization of Benzodiazepine Dependence" NIH-NIDA 07/01/90 - 06/30/91 \$137,543.

Brian Foresman, D.O. (Medicine) "Chronic and Acute Effects of Hyperbaric Oxygen Therapy in Treating Migraine Cephalgia" American Osteopathic Association 09/01/90/ - 08/31/91 \$17,310.

Pamela Gayheart, Ph.D. (Physiology) "Visceral Reflexes Affecting Coronary Circulation" American Heart Association, Texas Affiliate 07/01/90 - 06/30/91 \$29,700.

Robert Gracy, Ph.D. (Biochemistry) "Pyrollidone Carboxylic Acid and Urocanic Acid in the Stratum Corneum During Aging and in Xerosis" Johnson & Johnson 12/05/90 - 08/31/90 \$2,100.

Robert Gracy, Ph.D. (Biochemistry) "Molecular Basis for Abnormal Proteins in Aging Cells" (MERIT) Award NIH - NIA 02/01/90 - 01/31/91 \$176,578.

Robert Gracy, Ph.D. (Biochemistry) "Evaluation of 8 Potential New Drugs for the Treatment of Psoriasis" Greenwich Pharmaceuticals 03/01/90 - 09/30/90 \$29,148.

Patricia Gwartz, Ph.D. (Physiology) "Adrenergic Limitation of Coronary Flow During Exercise" NIH - NHLBI 07/01/90 - 06/30/91 \$91,553.

Ben Harris, Ph.D. (Biochemistry) "Minority High School Student Research Apprentice Program" NIH 03/01/90 - 02/28/91 \$10,500.

Ben Harris, Ph.D. (Biochemistry) "Biomedical Research Support Grant" NIH 04/01/90 - 03/31/91 \$43,927.

Ben Harris, Ph.D. (Biochemistry) "Regulation of Metabolism in Parasitic Helminths" NIH - NIAID 04/01/90 - 03/31/91 \$140,018.

Elaine Jacobson, Ph.D. (Medicine/Biochemistry) "Modifications of Proteins by ADP-ribose" NSF 02/15/90 - 02/14/91 \$70,000.

Elaine Jacobson, Ph.D. (Faculty Sponsor) Bryan Wasson, D.O. (Fellow) "Niacin Nutriture as a Preventive Factor in Carcinogenesis" American Osteopathic Association/Burroughs Wellcome Osteopathic Research Fellowship 07/01/90 - 06/30/91 \$5,000.

Myron Jacobson, Ph.D. (Biochemistry) "Alteration of NAD Metabolism by Chemical Carcinogens" NIH - NCI 04/01/90 - 02/28/91 \$212,649.

Myron Jacobson, Ph.D. (Biochemistry) "Alcon Postdoctoral Fellowship" Alcon Laboratories 01/15/90 - 01/14/91 \$20,000.

Myron Jacobson, Ph.D. (Anatomy/Cell Biology) "Small Instrumentation Grant Program" NIH - NHLBI 08/01/90 - 07/31/91 \$14,382.

Carl Jones, Ph.D. (Physiology) "Studying Adrenergic Eye Drugs" Alcon Laboratories 03/01/90 - 12/31/90 \$3,000.

Andras Lacko, Ph.D. (Biochemistry) "Carbohydrate Component of LCAT" American Heart Association/National Center 07/01/90 - 06/30/91 \$37,620.

Andras Lacko, Ph.D. (Biochemistry) "International Symposium on Reverse Cholesterol Transport and Coronary Heart Disease" Various private sources 11/11/89 - 11/12/89 \$25,050.

Harbans Lal, Ph.D. (Pharmacology) "Characterization of Ethanol Withdrawal" NIH - NIAAA 09/01/90 - 08/31/91 \$139,880.

Harbans Lal, Ph.D. (Pharmacology) "Neurobehavioral and Immunological Markers of Aging" NIH - NIA 04/01/90 - 03/31/91 \$118,082.

John Licciardone, Ph.D. (Public Health/Preventive Medicine) "A Substance Abuse Prevention Program at TCOM" ED - Fund for the Improvement of Postsecondary Education 09/01/90 - 10/31/92 \$50,436.

Edward Orr, Ph.D. (Anatomy/Cell Biology) "CNS-Associated Mast Cells, Vasoactive Amines and Recurrent EAE in Lewis Rats" National Multiple Sclerosis Society 04/01/90 - 09/30/90 \$44,609.

Edward Orr, Ph.D. (Anatomy/Cell Biology) "Effect of GM1 on Chronic Experimental Autoimmune Encephalomyelitis" Fidia Research Laboratories 05/01/90 - 12/31/90 \$20,627.

Edward Orr, Ph.D. (Anatomy/Cell Biology) "Effect of GM1 on Chronic Experimental Autoimmune Encephalomyelitis" Fidia Research Laboratories 01/01/90 - 12/31/90 \$17,190.

Frank Papa, D.O. (Medical Education) "The Development of Expertise in the Diagnosis of Chest Pain" Emergency Medicine Foundation and Society for Academic Emergency Medicine" 10/24/89 - 10/23/90 \$5,000.

Eugene Quist, Ph.D. (Pharmacology) "Regulation of Cardiac Function by Muscarinic Agonists" NIH - NHLBI 12/01/89 - 11/30/90 \$84,976.

Eugene Quist, Ph.D. (Pharmacology) "Regulation of Human Placental Vasculature by PGF2A and Histamine" American College of Osteopathic Obstetricians and Gynecologists 07/01/90 - 6/30/91 \$2,500.

Peter Raven, Ph.D. (Physiology) "Exercise Training and Baroreceptor Function" NIH - NHLBI 12/01/89 - 11/30/90 \$105,802.

Peter Raven, Ph.D. (Physiology) "Baroreflexes and Orthostatism--Fitness Effect" NIH - NHLBI 08/01/90 - 07/31/91 \$113,800.

Peter Raven, Ph.D. (Physiology) "Determination of Muscle Strength, Endurance and Work Efficiency During EVA Type Arm Work" National Aeronautics and Space Administration 02/01/90 - 01/31/91 \$60,000.

Peter Raven, Ph.D. (Physiology) "Education of Scientists in Cardiovascular Regulation" NIH - NHLBI 07/01/90 - 06/30/91 \$52,040.

Bernard Rubin, D.O. (Medicine) "A Four-Week, Single-Blind Efficacy and Safety Study of Feldene versus Voltaren in the Treatment of Patients with Rheumatoid Arthritis" Pfizer 03/01/90 - 02/28/91 \$36,540.

Victoria Rudick, Ph.D. (Anatomy) "Targeted Protein Secretion in Polarized Epithelial Cells" with TWU NIH/NIGM 05/01/90 - 04/30/91 \$4,630.

Konrad Scheel, Ph.D. (Physiology) "Mechanism of Coronary Vascular Adaptation" NIH - NHLBI 12/01/89 - 11/30/90 \$149,749.

Richard Sinclair, Ph.D. (Student Affairs) "Health Careers Opportunities Program Project" 09/01/90 - 08/31/91 \$129,585.

Tero Walker, D.O. (Surgery) "A Multiple-Dose, Open Label Clinical Trial of the Safety & Efficacy of Enoxaparin for Prevention of Post-Operative Deep Vein Thrombosis Following Total Hip Replacement Surgery" Phone-Poulenc Pharmaceuticals. 12/14/89 - 05/31/90 \$54,510.

Judy Wilson, Ph.D. (Physiology) "Hyperbaric Medicine and Physiology Research" Nonprofit Private 12/01/89 - 11/30/90 \$51,297.

Judy Wilson, Ph.D. (Physiology) "Validation of an Ankle-Brachial Index for Use in the Treatment of Diabetics with HBO" Tandy Corporation 08/01/90 - 07/30/91 \$35,793.

Robert Wordinger, Ph.D. (Anatomy/Cell Biology) "Cell Biology of Intrusive Implantation" 06/01/89 - 05-31-90 \$43,981.

Thomas Yorio, Ph.D. (Pharmacology) "Angiotensin II Antagonist as an Ocular Hypotensive Drug" E.I. Dupont De Nemours & Company 11/01/89 - 04/30/90 \$33,740.

Thomas Yorio, Ph.D. (Pharmacology) "Graduate Student Fellowship" Alcon Laboratories 01/01/90 - 12/31/90 \$12,000.

Thomas Yorio, Ph.D. (Pharmacology) "Glaucoma Studies" Alcon Laboratories 03/16/90 - 08/31/90 \$35,000.

TOTAL FUNDING AWARDED \$3,387,995.

INTERNAL RESEARCH AWARDS

Rafael Alvarez-Gonzalez, Ph.D. (Microbiology/Immunology) "Protein-Mono (ADP-ribosyl) ation in Rat Liver Nuclei" NIH-BRSG 04/01/90 - 03/31/91 \$3,000.

Fred Downey, Ph.D. (Physiology) "Regulation of Right Coronary Blood Flow" NIH - BRSG 04/01/90 - 03/31/91 \$10,000.

Michael Forster, Ph.D. (Pharmacology) "Neuronal Targets of Brain-Reactive Antibodies in Aging Mice" NIH - BRSG 04/01/90 - 03/31/91 \$3,000.

Stephen Grant, Ph.D. (Biochemistry) "The Biochemistry of the Neutrophil Chemotactic Receptor" NIH - BRSG 04/01/90 - 03/31/91 \$3,497.

Wayne Nicholson, Ph.D. (Microbiology/Immunology) "Repair of Ultraviolet Light Damage in Bacterial Spores" NIH - BRSG 04/01/90 - 03/31/91 \$9,000.

Tony Romeo, Ph.D. (Microbiology/Immunology) "Genetic Regulation of Bacterial Glycogen Biosynthesis" NIH - BRSG 04/01/90 - 03/31/91 \$5,000.

Patrick Shaklee, Ph.D. (Biochemistry) "Nucleotide Specificity of Native and Altered QB Replicase" NIH - BRSG 04/01/90 - 03/31/91 \$5,000.

Paula Sundstrom, Ph.D. (Microbiology/Immunology) "Virulence Genes of *Candida albicans* an Aids Opportunist" NIH - BRSG 04/01/90 - 03/31/91 \$5,000.

TOTAL FUNDING AWARDED \$43,497.

TCOM Committees Related to Research Applications

Research applications requiring approvals or review for matters dealing with animals, human subjects, radiation safety, intellectual property, and recombination DNA should consult with the following committee persons:

Animal Care and Use Committee (ACUC)	Dr. Eugene Quist (735-2056)
Institutional Review Board (IRB, Human Subjects)	Dr. Peter Raven (735-2561)
Radiation Safety (Radioactive Material & Waste)	Dr. James Sims (735-2697)
Intellectual Property (Patents & Copyrights)	Dr. Tom Yorio (735-2056)
Recombinant DNA	Dr. Mike Jacobson (735-2045)

MEETINGS AND CONFERENCES OF INTEREST

November 26-28, 1990 34th Annual Research Conference Under Sponsorship of the Bureau of Research, American Osteopathic Association, Las Vegas, Nevada (800) 621-1773. The theme of the Conference is: "The Changing Medical Education".

NIH OTHER SUPPORT PAGE

NIH and ADAMHA have recently emphasized the requirement for complete, accurate, and reliable information for the "other support" page of the Public Health Service Grant Application Form PHS 398, revised October, 1988. The applicant is expected to list all, including both Federal and Non-Federal, active support and pending and planned requests for support of research and research-related activities by all key personnel listed in the application. Incomplete, inaccurate, or ambiguous information about OTHER SUPPORT could lead to delays in the review of the application. If there are changes subsequent to submission, notify the executive secretary of the initial review group. In a recent issue of the NIH GUIDE, they emphasized that in signing the face page of the application the principal investigator or program director and the applicant institutional official certify that the application information is accurate and complete. Further, applicants should be cognizant that serious consequences could result if failure to provide complete and accurate information is construed as an attempt to mislead PHS agency advisory groups and staff in their review and award responsibilities.

ENROLLING WOMEN IN CLINICAL TRIALS

In 1986, the National Institutes of Health developed a policy to increase the enrollment of female subjects in clinical trials. The General Accounting Office (GAO) has recommended that the NIH Director: 1) inform NIH staff, grant reviewers and the research community that NIH supports the policy and how it should be carried out; 2) direct NIH to maintain readily accessible data to allow assessment of the extent to which women are included in studies; 3) ensure that the planned revision of the grant application booklet adds a section explaining the policy and instructing applicants to respond to the requirement to include women in study populations, or to justify their exclusion; 4) instruct members of review groups to determine whether the gender of the study population is an issue of scientific merit; 5) instruct members of review groups to consider this issue when assigning a priority score and to document their decisions in the summary statements. While NIH has reported that the policy is being consistently applied beginning with the 1990 grant review cycles, few announcements have been made to the research community about the need to incorporate a discussion about this issue into the description of the research plan. NIH has announced that a revised version of the PHS Form 398, that is due out in April, 1991, will make reference to the policy and provide instructions on what information will be required in a grant application that involves the use of human subjects. Until the new PHS 398 forms are released by NIH, investigators using human subjects may want to include a discussion about this matter as an additional item under "Section E - Human Subjects".

NIH GUIDE TO PRIORITY SCORES, PERCENTILES AND PAYLINES

Most of the applications submitted to NIH receive their initial review for scientific and technical merit by one of the chartered, regular study sections in the Division of Research Grants. Each application is discussed individually, and the recommendation is determined by majority vote of the members of the study section. If the application is recommended for approval, each member votes privately and individually a priority rating is given

consistent with the assessment of its merit. The **priority score** for an application is determined by averaging the individual ratings and multiplying by 100. Thus, the 3-digit priority scores range from 100 (best) to 500 (poorest).

To deal with the diversity of rating behavior among study sections (easy versus hard graders) and because of priority score "creep" (an increasing proportion of scores of 150 or better, a **percentile rank** is now calculated for each score. The **percentile** represents the relative position or rank of each priority score among the scores assigned by that particular study section at its last three meetings. The lower the numerical value of the priority score or percentile, the better the application. Both the priority score and percentile rank are displayed on the summary statements forwarded to the funding unit (Institute, Center, or Division) and the applicant.. The percentile rank of priority scores now serves as the primary index of relative scientific merit when applications are being considered for funding. Although the percentile rank is extremely important, the funding decisions of an Institute, Center, or Division include other critically important factors, such as relevance, program goals, portfolio balance, and available funds.

When a funding unit indicates a particular **percentile payline**, it means that, in general, applications that have an equal or better percentile will be funded. It is important to note, however, that one cannot easily derive the percent of approved applications to be awarded from the percentile payline.

The **award rate** is the proportion of applications recommend for approval that actually are awarded. In 1989, the overall award rate for research projects for all of the NIH components was 29.4%; this year, in FY1990, it is estimated that the overall NIH award rate will be approximately 24%. The **success rate** is the proportion of reviewed applications that are actually awarded. In 1989, the overall success rate for research project applications was 27.5%.

NEW PHS AGENCY FORMED

The Public Health Service (PHS) has formed a new agency to conduct research on the outcomes of health care services in order to determine the manner in which health problems can be most effectively treated and managed. This new organization, the Agency for Health Care Policy and Research, replaces the existing National Center for Health Care Policy and Research (NCHSR). The total funding for the research activities of the agency has been set at \$50 million in 1990, \$75 million in 1991, and 110 million in 1992. the agency will support research activities in the following general areas: 1) effectiveness and quality of health care services; 2) outcomes of health care services; 3) health care costs and productivity; 4) health care technologies; 5) health statistics; and 6) medical liability.

NSF ORDERS CHANGES IN PROPOSAL REVIEW

Responding to charges that its peer review system has left too much room for secrecy, the National Science Foundation says it will make a number of changes to ensure researchers access to information bearing on approval or rejection of their grant applications. Among the specific changes, NSF will tell applicants at the outset about additional documents they may obtain after a review beyond the materials they can expect to receive from NSF automatically. In addition, NSF will expand the documentation now provided automatically to include summaries of all review panel deliberation. And in the future, summaries will contain reviewer's reasons as well as their conclusions. In the past, NSF routinely has sent investigators copies of mail reviews, the main form of review, and some but not all programs using panels have forwarded panel summaries. NSF will encourage program officers to inform applicants of and give them opportunity to respond to any derogatory information or allegations that crop up in the review process. NSF will ask principal investigators applying for grants to name persons who should not review their proposals just as it now asks for likely reviewer candidates. The agency says it will provide current rosters of potential reviewers and panelists, which will be broken down by NSF division. NSF currently issues a list of scientists who have served recently as reviewers. It will make the rosters available in on-line form as soon as possible, and investigators also will be able to obtain hard copy printouts.

FUNDING OPPORTUNITIES

THE JOHN A. HARTFORD FOUNDATION The Aging and Health Program - Three areas receive priority in grant-making: 1. improving the organization and financing of long-term care; 2. medication problems of the elderly; 3. strengthening physicians' knowledge of geriatrics. The foundation also welcomes inquiries regarding projects that may not fit these specific interests but would further the broad goals of its programs. Contact: Executive Director, The John A. Hartford Foundation, Inc., 55 E. 59th Street, New York, NY 10022. **NO SPECIFIC DEADLINE.**

ELSA U. PARDEE FOUNDATION Research project grants ranging from approximately \$2,500 to \$150,000 are available for research projects directed toward the cure and control of cancer. The foundation particularly welcomes innovative, small-scale, short-term projects which may be difficult to fund elsewhere. Pardee Foundation, P.O. Box 1866, Midland, MI 48641-1866 (517) 832-3691. **DEADLINE: Applications are received throughout the year.**

Gustavus and Louise Pfeiffer Research Foundation Grants-in-aid are awarded to support basic biomedical and pharmaceutical research. Grants vary in amount with a maximum of approximately \$25,000. Pilot projects involving relatively small amounts of money are preferred. The foundation requests a preliminary inquiry by letter, describing in concise form the project and the approximate funding required, before submission of a formal proposal. Contact: George R. Pfeiffer, Secretary-Treasurer, 300 E. State Street, Suite 450, P.O. Box 1153, Redlands, CA 92373. **DEADLINE: None**

THE BURROUGHS WELLCOME FUND Wellcome Research Travel Grants for the U.S. - Britain-Ireland Exchange Visits - Research travel grants are available for periods of two weeks to a maximum of three months. Contact: (919) 248-4136. **DEADLINE: None.**

KRESGE FOUNDATION Medical schools and teaching hospitals can benefit from the Kresge Foundation's challenge grant program to help improve teaching and research laboratories by funding science equipment upgrades and renovation of facilities that house equipment. Applicants must show they can match Kresge grants with funds from other sources. Applicants must raise at least two times the total cost of the initial upgrade project so they can build a permanent endowment for future equipment updates or support of programs that use the equipment. Grant awards range from \$150,000 to \$500,000 and with matching funds are designed to help institutions raise up to \$1 - \$2 million. Organizations providing matching funds for grantees include the Keck Foundation, Howard Hughes Medical Institute, Pew Charitable Trusts, National Science Foundation, and National Institutes of Health. Contact: Kresge Foundation, P.O. Box 3151, 3215 W. Big Beaver Road, Troy, MI 48007, (313) 643-9630. **DEADLINE: Kresge will accept applications for the science initiative until March 31, 1992. Applications to the general grant program may be submitted at any time.**

PEW CHARITABLE TRUSTS One area of program interest is Health and Human Services. The current program emphasizes the following areas: health care and the health sciences; community development; and programs to assist the elderly, children and youth, the disabled, and other high risk groups. They also provide support in the area of international health by funding efforts to assist developing nations with health care problems. In 1989, 45% of the Trust's budget was allocated to the health and human services area. For further information about the Pew Charitable Trusts contact the Communications Office at (215) 587-4056 or write: The Pew Charitable Trusts, Three Parkway, Suite 501, Philadelphia, PA 19102-1305. **DEADLINE: November 15, 1990.**

NATIONAL CANCER INSTITUTE Request for Applications. Small Research Grants on the Molecular and Cellular Biology of Metastatic Tumor Cells - This special initiative is designed to promote collaborations and facilitate scientific interchange between investigators, one with experience in the biology of metastasis and the other in a more basic scientific discipline such as molecular or cellular biology or biochemistry. This award provides a maximum of \$40,000 per year for up to 2 years. It is anticipated that 10 awards will be made. Contact: Michael R. Martin, (301) 496-7028. **DEADLINE: Letter of Intent Receipt Date: September 10, 1990; Application Receipt Date: October 10, 1990.**

LEUKEMIA SOCIETY OF AMERICA Scholars conducting original scientific research bearing on leukemia and related diseases. Awards are given for a period of five years with a total of \$200,000 for salary and benefits. The Special Fellows Program and Fellows Program also support research scientists working on projects relevant to leukemia. Contact: Kenneth B. McCredie, M.D., V.P./Medical and Scientific Affairs, Leukemia Society of American, Inc. 733 Third Avenue, New York, NY 10017 (212) 573-8484. **DEADLINE: October 1, 1990.**

LUCILLE P. MARKEY SCHOLAR AWARDS IN BIOMEDICAL SCIENCE Provides support for the first five years of faculty service to enable the awardee to devote full time to research. **DEADLINE: October 1, 1990.** Grants are made to support specific research project under the Research Project Grants Program. Grants are made from three to five years with emphasis placed on supporting in whole or in part interdisciplinary efforts by small groups of investigators addressing fundamental questions in biomedical science. Most grants support work in fields such as molecular biology, developmental biology, neurobiology, immunology, genetics, virology, and related areas of basic science, as well as fundamental biomedical research in fields such as nutrition, anesthesiology and toxicology. Contact: Executive Office, Lucille P. Markey Charitable Trust, 3250 Mary St. Suite 405, Miami, FL 33133, (305) 445-5612. **DEADLINE: None.**

AMYOTROPHIC LATERAL SCLEROSIS ASSOCIATION Support is provided to support research into the cause, prevention, alleviation and cure of ALS. Grants from one to three years are awarded to support basic research. **DEADLINE: Abstracts of proposed studies are due by September 15, 1990** Contact: (818) 340-7500.

MARCH OF DIMES BIRTH DEFECTS FOUNDATION Basic Research Grants Funds are provided for research into the etiology of birth defects in three main areas: 1) Hereditary Influence - the structure and function of chromosomes and genes; 2) Environmental Effects - radiation, infections and malnutrition; 3) Interaction between Heredity and Environment - enzymatic feedback and an individual's resistance to disease. Research leading to an understanding of human teratogenesis may be given preference. A letter of inquiry with a 300-word abstract of the proposal must be submitted before an application for a grant will be provided. Contact: (914) 428-7100 **DEADLINE for receipt of full applications is October 1, 1990.**

THE CHARLES A. LINDBERG FUND Grants support a number of categories including biomedical research. Contact: (612) 338-1703. **DEADLINE: October 1, 1990.**

AMERICAN LUNG ASSOCIATION Research Grants These awards are considered postdoctoral "seed money" for the support of new investigators holding doctoral degrees. Awards are targeted for individuals who have completed at least two years of research training and who are at the instructor or assistant professor level. Contact: American Lung Association, Medical Affairs Division, 1740 Broadway, New York, NY 10010-4374. **DEADLINE: November 1, 1990.**

NATIONAL INSTITUTE ON AGING Biomedical and Psychosocial Perspectives on Aging Rehabilitation NIA will award Special Emphasis Research Career Awards in the area of geriatric rehabilitation to support career development of investigators with expertise in either rehabilitation or biomedical, behavioral or social aspects of aging. Awardees must hold a Ph.D, M.D. or other professional degree and have at least two years of experience in rehabilitation, geriatrics, gerontology or other relevant areas. Contact: Richard Weindruch, Geriatrics Branch, National Institute on Aging, Bldg. 31, Room 5C27, Bethesda, MD 20892, (301) 496-3136. **DEADLINE: October 1, 1990.**

The Research Office is proud to announce the newest addition to its staff, Dr. Harold W. Keller. Dr. Keller comes to us well-versed in the area of research administration. He will be here to help you search for new funding avenues. He is also adjunct Associate Professor of Microbiology & Immunology. He can be reached at 2618.