

Research



TCOM Notes

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Second Round of Funding for Grants on Aging

The Texas Institute for Research and Education on Aging announces the second round of competition for grant funds to support pilot research projects on aging. The Institute's mission is to launch innovative, nationally and internationally significant research projects, educational programs, and service models that promote the well-being of older persons. The key strategy in carrying out this mission is both interdisciplinary and



intercampus project development. Projects that have a good chance for extramural funding and involve an interdisciplinary effort of clinical, basic, applied or policy research will be given higher priority. **These grant proposals are due**

March 2, 1992. For further information contact Stan Ingman, Ph.D., at UNT: (817) 565-2298 or TCOM: (817) 735-2403. Proposal forms are available from the TCOM Research Office.

New PHS Forms 398 and 2590

The new PHS Form 398 should be in our hands next month. Changes include the following specific items:

- an increase in the maximum length of the research plan from 20 pages to 25 pages, to give more pagination to explain the project;
- a shortened budget page that eliminates some previously required math;
- an expanded requirement to list all, not just key, individuals who will participate in the research;
- biographical sketches of not more than two pages for each key person, collaborator and consultant;
- a requirement to identify all other research support or project-specific funds from any source available to investigators, including gifts and prizes;

acceptance of manuscripts — as well as

published articles and manuscripts accepted for publication — as supporting material;

- a limit of six pages for literature citations that are complete, including the names of all articles, titles and authors, so reviewers can consult articles if they wish; and
- a requirement that tables and graphs be included in the research plan section, not banished to the appendices to gain space.

For the first time, the form also asks applicants to report anticipated program income and states PHS's policy on including appropriate gender and minority research subjects. The separate forms for the drug-free workplace and other grantee assurances (12) now are included as a checklist on one page. This will help to alleviate the administrative paperwork burden that is associated with filing these assurance statements.

"Science in the Biotech Industries" Workshop to be held at TCOM February 14

The TCOM Department of Biochemistry and Molecular Biology will conduct a half-day mini-workshop dealing with *Science in the Biotech Industries*. This workshop will feature a series of short seminars and round table discussions presented by three of our Ph.D. alumni who are now in prominent positions in the industry: Drs. H. S. Lu (Amgen), P. K. Tsai (Merck Sharpe & Dohme), S. Hara (Amgen). This workshop will be held on February 14, 1992 at 9:00 AM in room ME3-110 until 12:00 noon. Individual meetings can be arranged between 1:30 to 5:00 PM. Interested persons please call Hassie Enochs at Ext. 2141 to arrange one on one meetings.

Salary Limitation on Grants and Contracts

For the second consecutive year Congress has imposed salary limitations on applicants for grants to NIH and ADAMHA. For FY 1992 (October 1, 1991 to September 30, 1992), the amount of direct salary of an individual under a grant and contract can be no more than \$125,000 per year for 100 per cent effort. The salary limitation applies to amounts permitted in grant and contract awards as well as charged to those awards. An individual's institutional salary, per se, is not constrained by this legislative provision. An institution may supplement an individual's salary with non-HHS funds.

RECENT TCOM AWARDS

Dan Dimitrijevic, Ph.D.,

(Department of Biochemistry and Molecular Biology), "Study of the Structural Characterization of the Oxidized Regenerated Cellulose (OCR) Material Known as Surgicel (TM)," Johnson & Johnson, 12/01/91 - 11/30/92, \$5,000.

Peter B. Raven, Ph.D., (Department of Physiology), "American College of Sports Medicine, Editor-in-Chief," American College of Sports Medicine, 01/01/92 - 12/31/92, \$32,280.

Bernard R. Rubin, D.O., (Department of Medicine), "Diclofenac Potassium: A Single-Blind, Randomized, Parallel Trial Comparing the Safety of Diclofenac Potassium 37.5 mg, 75 mg, 150 mg, and Ibuprofen 1200 mg Total Daily Dose in Patients with Mild to Moderate Osteoarthritis," Ciba-Geigy Corporation, 02/01/92 - 03/31/93, \$33,600.

Thomas Yorio, Ph.D., (Department of Pharmacology), "Alpha₂ Analogues as Efficacious Antiglaucoma Drugs," Farnos Group Ltd., 11/01/91 - 10/31/92, \$20,000.

Thomas Yorio, Ph.D., (Department of Pharmacology), "Alcon Research Training," Alcon Laboratories, Inc., 01/01/92 - 12/31/92, \$74,792.

Ming-Chi Wu, Ph.D., (Department of Biochemistry and Molecular Biology), "C-GEM Biomedical License Agreement," 11/06/91 - 11/05/92, \$5,000.

Total Funding Awarded: \$170,672

TCOM AWARDS FROM THE TEXAS INSTITUTE FOR RESEARCH AND EDUCATION ON AGING

Janice A. Knebl, D.O., (Department of Medicine), TCOM, and Thomas J. Fairchild, Ph.D., Studies in Aging, UNT, "Match of Functional and Self Report Measures of Activities of Daily Living," 01/01/92 - 08/31/92, \$3,879.

Andras G. Lacko, Ph.D., (Department of Biochemistry and Molecular Biology), TCOM, **Janice A. Knebl, D.O.,** (Department of Medicine), TCOM, "Alterations of Plasma Components in Alzheimer's Disease," 01/01/92 - 12/31/92, \$10,000.

Jeanette Davidson, Ph.D., (Sociology/Social Work), UNT, Susan Brown Eve,

Ph.D., (Sociology/Social Work), UNT, Daniel Johnson, Ph.D., Professor and Dean, Community Service, UNT, **Sue Lurie, Ph.D.,** (Department of Medical Humanities), TCOM, **Sarah Peyton, MSW,** (Department of Medical Humanities), TCOM, Vijayan K. Pillai, Ph.D., (Sociology/Social Work), UNT, **Gregory Smith, D.O.,** Department of General and Family Practice, TCOM, **Gregory McQueen,** Assistant to the Dean, Office of the Dean, TCOM, "Health and Social Needs of Older Adults in Stop Six," 01/01/92 - 08/31/92, \$7,650.

Kimberly Kelly, Ph.D., Psychology, UNT, Charles A. Guarnaccia, Ph.D., Psychology, UNT, and **Michael Forster, Ph.D.,** TCOM, (Department of Pharmacology), "Biopsychosocial Measures of Alzheimer's Patients and Caregivers," 01/01/92 - 12/31/92, \$6,000.

Richard A. Lusky, Ph.D., Studies in Aging, UNT, **Pamela Millsap, MSN,** (Department of Medicine - GAP Program), TCOM, "Case-managed Community Care and Life Expectancy in the Elderly," 01/01/92 - 07/31/92, \$2,836.

EXTERNAL GRANT PROPOSALS SUBMITTED

Rafael Alvarez-Gonzalez, Ph.D., (Department of Microbiology and Immunology), "Enzymology of ADP-ribose Polymer Synthesis," The Welch Foundation, 06/01/92 - 05/31/95, \$90,000.

Richard Baldwin, D.O., (Department of General and Family Practice), "Establishment of Departments of Family Medicine," Department of Health and Human Services - Public Health Service, 09/01/92 - 08/31/93, \$163,553.

Patrick R. Cammarata, Ph.D., (Department of Anatomy and Cell Biology), "Isolation and Characterization of the Myo-inositol Transporter(s) in Cultured Bovine Lens Epithelial Cells," The Welch Foundation, 06/01/92 - 05/31/95, \$106,049.

Paul F. Cook, Ph.D., (Department of Microbiology and Immunology), "Mechanism of an Acyltransferase-Serine Transacetylase," National Institutes of Health - National Institute of General Medical Sciences, 12/01/92 - 11/30/97, \$909,612.

Dan Dimitrijevic, Ph.D., (Department of Biochemistry and Molecular Biology), "Study of the Structural Characterization of the Oxidized

Regenerated Cellulose (OCR) Material Known as Surgicel (TM)," Johnson & Johnson, 12/01/91 - 11/30/92, \$5,000.

H. Fred Downey, Ph.D., (Department of Physiology), "High School Science Teachers Research in Physiology Program 1992," American Physiological Society, 06/01/92 - 08/15/92, \$3,250.

H. Fred Downey, Ph.D., (Department of Physiology), "Effects of Smokeless Tobacco on Blood Flow to Tissues of the Mouth," Smokeless Tobacco Research Council, Inc., 07/01/92 - 06/30/93, \$49,610.

Michael J. Forster, Ph.D., (Department of Pharmacology), "Genetic Models of Ethanol Tolerance," Alcohol, Drug Abuse and Mental Health Administration - National Institute on Alcohol Abuse and Alcoholism, 01/12/92 - 11/30/97, \$859,562.

Robert W. Gracy, Ph.D., (Department of Biochemistry and Molecular Biology), "Fogarty International Research Collaboration Award," National Institutes of Health, 12/01/92 - 11/30/95, \$47,713.

Stephen R. Grant, Ph.D., (Department of Biochemistry and Molecular Biology), "An Oncogenic Phosphorylation Lesion in the Cellular Control of Human B Cell Proliferation," The Welch Foundation, 06/01/92 - 05/31/95, \$90,000.

Ben G. Harris, Ph.D., (Department of Biochemistry and Molecular Biology), "Regulation of Metabolism in Parasitic Helminths," National Institutes of Health - National Institute of Allergy and Infectious Diseases, 04/01/92 - 03/31/92, \$149,981.

Ben G. Harris, Ph.D., (Department of Biochemistry and Molecular Biology), "Minority High School Student Research Apprentice Program," National Institutes of Health - National Center for Research Resources, 03/01/92 - 02/28/93, \$17,000.

Myron K. Jacobson, Ph.D., (Department of Anatomy and Cell Biology), "Alteration of NAD Metabolism by Chemical Carcinogens," National Institutes of Health - National Cancer Institute, 03/01/92 - 02/28/93, \$192,042.

Janice A. Knebl, D.O., (Department of Internal Medicine), "Biochemical Assessment of Niacin Status in the Elderly: Correlation to Dietary and Supplemental Intakes," American Federation for Aging Research (AFAR), 07/01/92 - 06/30/93, \$25,000.

Andras G. Lacko, Ph.D. and G. S. J. Rao, Ph.D., (Department of Biochemistry and Molecular Biology), "Structural Studies on Wild Type and Mutant Forms of LCAT,"

Welch Foundation, 06/01/92 - 05/31/95, \$100,000.

Andras G. Lacko, Ph.D., "Structure/Function of Recombinant LCAT," National Institutes of Health - National Heart, Lung, and Blood Institute, 12/01/92 - 11/30/96, \$726,576.

Harbans Lal, Ph.D., (Department of Pharmacology), "Drug Discovery for Age-Related Dementia," Glaxo Group Research Limited, 01/01/92 - 12/31/93, \$209,068.

Harbans Lal, Ph.D. and Michael J. Forster, Ph.D., (Department of Pharmacology), "Drug Discovery for Age-Related Dementia," Glaxo Group Research Limited, 02/01/92 - 01/31/93, \$62,724.

Harbans Lal, Ph.D., (Department of Pharmacology), "Neurobehavioral and Immunological Markers of Aging," National Institutes of Health - National Institute on Aging, 04/01/92 - 03/31/93, \$125,973.

John C. Licciardone, D.O., (Department of Public Health and Preventive Medicine), "Analyses to Identify Successful Components of Drug Prevention Programs in Higher Education," U. S. Department of Education - Fund for the Improvement of Postsecondary Education, 09/01/92 - 08/31/94, \$125,347.

Robert R. Luedtke, Ph.D., (Department of Pharmacology), "Characterization of D₄ Dopamine Receptors," National Alliance for Research on Schizophrenia and Depression, 07/01/92 - 06/30/94, \$60,000.

Robert R. Luedtke, Ph.D., (Department of Pharmacology), "The Role of Autoimmunity in Age-Related Cognitive Decline: Characterization of the Antigens Associated with the C57BL/6 Antibody Response," American Federation for Aging Research (AFAR), 07/01/92 - 06/30/93, \$25,000.

Robert R. Luedtke, Ph.D., (Department of Pharmacology), "Characterization of the Autoimmune Brain Reactive Antibody Response," Alzheimer's Association, 07/01/92 - 06/30/95, \$135,000.

Robert R. Luedtke, Ph.D., (Department of Pharmacology), "Characterization of Renal D₂-Like Dopamine Receptors," American Heart Association, Texas Affiliate, Inc., 07/01/92 - 06/30/94, \$35,200.

Robert T. Mallet, Ph.D., (Department of Physiology), "Substrate-induced Protein Phosphorylation: a Mechanism for Modulating Ca²⁺ Transport in Cardiac Sarcoplasmic Reticulum?," The Welch Foundation, 06/01/92 - 05/31/95, \$122,720.

Robert T. Mallet, Ph.D., (Department of Physiology), "Subcellular Mechanisms for Peruvate Protection of In Situ Myocardium," American Heart Association, Texas Affiliate,

Inc., 07/01/92 - 06/30/94, \$70,200.

Harvey G. Micklin, D.O., (Department of Psychiatry), "Multicenter Trial to Evaluate the Efficacy and Safety of Sertraline in the Treatment of Major Depression," Pfizer Inc., \$9,500.

Carolyn W. Quist, D.O., (Department of Obstetrics and Gynecology), "Control of Human Placental Vascular Tension," American Heart Association, Texas Affiliate, Inc., 07/01/92 - 06/30/94, \$65,774.

Peter B. Raven, Ph.D. and Craig Crandall, (Department of Physiology), "Effects of Simulated Microgravity on Baroreflex Control of Blood Pressure," National Aeronautics and Space Administration, 09/01/92 - 08/31/93, \$22,000.

Peter B. Raven, Ph.D. (Department of Physiology), "Education of Scientists in Cardiovascular Regulation," National Institutes of Health - National Heart, Lung, and Blood Institute, 07/01/92 - 06/30/93, \$57,262.

Bernard R. Rubin, D.O., (Department of Medicine), "Diclofenac Potassium: A Single-Blind, Randomized, Parallel Trial Comparing the Safety of Diclofenac Potassium 37.5 mg, 75 mg, 150 mg, and Ibuprofen 1200 mg Total Daily Dose in Patients with Mild to Moderate Osteoarthritis," Ciba-Geigy Corporation, 02/01/92 - 03/31/93, \$33,600.

Ming-Chi Wu, Ph.D., (Department of Biochemistry and Molecular Biology), "C-GEM Biomedical License Agreement," C-GEM Biomedical, 11/06/91 - 11/05/92, \$5,000.

Ming-Chi Wu, Ph.D., (Department of Biochemistry and Molecular Biology), "Biochemical Mechanism of Wound Healing by Hyperbaric Treatment," American Osteopathic Association, 09/01/92 - 08/31/93, \$18,686.

Thomas Yorio, Ph.D., (Department of Pharmacology), "Alcon Research Training," Alcon Laboratories, Inc., 01/01/92 - 12/31/92, \$74,792.

Thomas Yorio, Ph.D., (Department of Pharmacology), "Cellular Mechanisms in Adrenergic Ocular Hypotension," National Institutes of Health - National Eye Institute, 12/01/92 - 11/30/96, \$690,978.

Thomas Yorio, Ph.D., (Department of Pharmacology), "Alpha₂ Analogues as Efficacious Antiglaucoma Drugs," Farnos Group Ltd., 11/01/91 - 10/31/92, \$20,000.

Total Funding Requested:
\$5,493,772

NIH to Consider Cost of Grant for National Advisory Councils and Boards

The National Institutes of Health has announced that it will include an estimate of the total cost for all proposed projects on the summary statements that are being considered by the National Advisory Councils and Boards.

This new procedure is part of the financial management plan to increase stability and predictability in funding biomedical research. While the estimated total cost **will not be made available to the study section**, it will be included in the summary statements presented to Council for the first year, all future years, and for the total project period.

In addition, NIH has announced that the total cost may be part of the decision to fund applications that are at or near the margin of fundability and the estimated total cost will be helpful when this is the case. NIH has assured the research community that when total costs could be a determining factor in the funding decision for a particular grant, a more precise calculation of the total cost will be made before a final funding decision is made.

The following method will be used to estimate total cost: 1) total costs required for the entire project (Item 8b on the PHS 398 face page) will be divided by the total direct cost requested for the entire project (Item 8a on the PHS 398 face page); 2) this figure will then be multiplied by the direct costs recommended for each year.

If both grants are well within the fundable range, both will be funded at the recommended amount but if both are at or near the margin of fundability, than the less costly of the two grants will be funded. It appears that each institute will define the margin of fundability for their grants. Consequently, the number of applications affected by this new management decision will vary depending upon the institute and program.

• FUNDING OPPORTUNITIES •

NIH Funds Disabled in Research

The National Institutes of Health now has funds available for grantees to involve students and faculty with disabilities in their research projects. Investigators with different types of NIH research awards may apply for grant supplements to bring on board eligible high school students, undergraduates, graduate assistants, postdoctoral trainees or faculty investigators. Added funds are mainly for salaries and supplies. NIH will limit salaries and expenses from \$2,000 for a three-month research stint for a high school student to \$50,000 a year for a faculty researcher. The limit is \$6.00 per hour for undergraduate assistants, plus \$125 a month for supplies and travel. And NIH will pay expenses and salary at the grantee institution's going rate for graduate students and postdoctoral trainees. These funding supplements will go to awards such as traditional research projects, program projects, core center awards and exploratory projects awards. More information is available from the Research Office. There should be enough time left on the grant (approximately two years) so that the supplement request can provide meaningful research experiences.

Research Funds for Underrepresented Minorities

The National Institutes of Health and the Alcohol, Drug Abuse, and Mental Health Administration are inviting applications for supplements to support minority high school students, undergraduates, graduate research assistants, postdoctoral trainees, and investigators on NIH and ADAMHA grants. More details are available from the Research Office at Ext. 2561.

Grants for Academic Research Facilities

The National Science Foundation

Academic Research Infrastructure Program funds grant proposals to upgrade and modernize academic research facilities and buy or develop costly research equipment not usually covered under other NSF instrumentation programs. Institutions may request \$100,000 to \$2 million each for instrumentation or facilities renovation. The matching requirement is 50 percent. NSF will divide applicants into three groups for separate consideration: institutions whose NSF funding has averaged at least \$3 million in the previous three fiscal years; those that have averaged \$400,000 to \$3 million; and those that have averaged less than \$400,000. **Closing Date: March 3, 1992.** For additional details please call the Research Office at Ext. 2561.

The National Institutes of Health is inviting applications under a one-time solicitation to renovate, expand or build new research facilities and acquire equipment to conduct urgent research in cancer, vision, heart, lung, blood, and AIDS. **Letters of intent are due March 10 and final proposals April 27, 1992.** Contact Kenneth Brow, Research Facilities Branch, Division of Cancer Biology, NCI, Executive Plaza North, Room 300, Bethesda, MD 20892, (301) 496-8534.

Clinical Scholars Program

The Robert Wood Johnson Clinical Scholars Program, 1992 is designed to allow young physicians committed to clinical medicine to acquire new skills and training in the non-biological sciences important to medical care systems. The program offers two years of graduate level study and research - as part of a university-based, post-residency training program - in priority areas designated by participating institutions. More program information about the array of disciplines, participating institutions, along with application materials are available from the Research Office. **Applications are due no later than March 1, 1992.**

Updated TCOM Institutional Fact Sheet Available

This information is provided for use in preparing proposals to external sponsors. The fact sheet (color coded green) includes the most recent information as of September, 1991. Copies are available in the Research Office.

Recent Publications

Michael J. Forster, Ph.D. and Harbans Lal, Ph.D., (Department of Pharmacology), have recently published a major review article: Lal, H., and M. J. Forster. 1991. Autoimmune Mice as Models for Discovery of Drugs Against Age-Related Dementia. *Drug Development Research*. 24: 1-27. and several journal papers: Forster, M.J., and H. Lal. 1991. Neurobehavioral Biomarkers of Aging: Influence of Genotype and Dietary Restriction. *Biomedical and Environmental Sciences* 4: 144-165. Prather, P. L., S. M. Rezazadeh, and H. Lal. 1991. Mianserin in the Treatment of Ethanol Withdrawal in the Rat: Prevention of Behaviors Indicative of Anxiety. *Psychopharmacology Bulletin*. 27: 285-289.

Tony Romeo, Ph.D., (Department of Microbiology and Immunology), Romeo, T., J. Moore, and J. Smith. 1991. A Simple Method for Cloning Genes Involved in Glucan Biosynthesis: Isolation of Structural and Regulatory Genes for Glycogen Synthesis in *Escherichia coli*. *Gene*. 108: 23-29.

TCOM Blue Book of Grant Funding 1990-1991 Available

This 32-page publication is now available from the Research Office. This booklet contains all of the extramural awards, internal awards such as the Texas Research Enhancement Program and the Biomedical Research Support Grant Program and proposal submissions organized by academic and clinical units. Each award entry has the Principal Investigator's name, degree, title of project, source of funding, start and ending dates for the first year of the project, total dollars awarded.

There is also data that measures the external award dollars for sponsored project activity by unit for the three most recent fiscal years.

National Cell Culture Services Available

The National Cell Culture Center is dedicated to providing large scale animal cell production services to researchers throughout the United States. The following customized large scale services are provided to scientists:

- 1) production of cell secreted proteins from genetically engineered animal cells;
- 2) production of monoclonal antibodies ranging from 500 milligrams to 100 grams;
- 3) production of mammalian cells, in suspension or anchorage dependent culture ranging from 10 to 200 liters per batch.