

T C O M

research notes

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BUDGET RESTRICTIONS AT NIH HEIGHTENS COMPETITION

Final FY'90 appropriations for the NIH will reportedly be below the amount necessary to keep programs operating at '89 levels.

According to an NIH source, an expected 1.5% deficit reduction cut will take \$100 million from the \$7.68 billion FY'90 appropriations. NIH had calculated that it would need \$8.1 billion to keep programs running at the FY'89 level. No programs are expected to be cut, but grants will likely be funded at a lower level.

The following breakdown by institute is subject to change before the beginning of 1990:

National Institute of Allergy and Infectious Diseases (NIAID): estimates are for 486 new and competing awards from 2,106 total research project grants. The tally for research fellows and trainees is 596 for FY'90.

National Institute of General Medical Sciences (NIGMS): Competing research project grants are set at 637 compared to 759 in 1989. Research project grant totals are 3,196 in 1990, compared to 3,245 in 1989. Totals for fellows and trainees are increased in 1990 to 3,870 from 3,437 in 1989.

National Eye Institute (NEI): Estimates are for 267 new and competing awards out of 1,127 total research project grants in 1990. This is a decrease from 282 out of 1,118 in 1989. Estimates for fellows and trainees are 254 in 1990, which is an increase of 48 over 1989.

National Institute on Aging (NIA): Competing awards are set at 156 of 606 total research project grants, down from 194 funded in 1989. These will be awarded at about 15.4% below recommended levels. The institute will fund 450 non-competing grants this year. They will be funded at about 13% below recommended levels. Payline, which identifies the group of grants actually to be funded, is expected to be at the 26th percentile. It is estimated this translates to a priority score "of around 160

or so." In FY'89, the priority scores funded were 190-200 or better. NIA estimates supporting 390 fellows and trainees in 1990, an increase of 85 over the previous year.

National Cancer Institute (NCI): expects to fund up to 822 new and competing awards. Research project grant totals are 3,175 compared to 3,098 in '89. Total research grant estimates are 3,748. Figures for fellows and trainees are 1,422, an increase of 129 over '89.

National Heart, Lung and Blood Institute (NHLBI): estimates making 601 new and competing awards, a drop from 646 in 1989. Estimates are for 2,779 total research project grants and 3,379 total grants in 1990. Fellows and trainees are estimated at 1,624.

National Institute of Dental Research (NIDR): estimates making 100 new and competing research project grants. Totals for all research grants are 592 in FY'90. The institute estimates supporting 218 fellows and trainees.

National Institute of Diabetes and Digestive and Kidney Diseases (NIADKD): estimates funding 430 competing research projects, compared to 562 in 1989. Research project grant totals are 2,037 for 1990 and research grant totals are 2,315. Estimates are for 895 fellows and trainees.

National Institute of Neurological Diseases and Stroke (NINDS): NINDS estimates 447 of 1,872 research project grants will be new and competing, compared to 565 of 1,969 in 1989. Totals for all research grants are 2,173 for 1990. Research fellows and trainees number 534.

National Institute of Child Health and Human Development (NICHD): new and competing awards are set at 342, down from 438 in 1989. Research project grants total 1,451 for 1990 and the institute estimates all research grants at 1,688. Totals for fellows and trainees are 700 for 1990.

National Institute of Arthritis and Musculoskeletal Diseases (NIAMD): expects to fund 135 competing research project grants. It sees research projects totaling 643 in 1990 and all research grants totaling 744. NIAMD expects fellows and trainees to total 230 in 1990, an increase of 36 over the prior year.

National Institute of Environmental Health Sciences (NIEHS): estimates for competing research project grants are 104 of a total of 363 for 1990. Totals for all grants are 416 in 1990. Totals for fellow and trainees for this year is 466, an increase of 59 over 1989.

NIH expects to fund no more than 4,765 new and competing research project grants in 1990, a decrease of 559 from last year. The agency estimates total research project grants, including new and continuation awards, will number approximately 20,448 compared with 20,731 last year.

Research and development *contracts* are on the upswing at NIH. They expect to award 1,525 contracts in FY'90.

DIVISION OF RESEARCH GRANTS REMINDER: LETTERS OF REFERENCE

Applicants for the Research Career Development Award (RCDA), the First Independent Research Support and Transition (FIRST), and the individual and senior National Research Service Award (NRSA) Fellowships are reminded to submit three letters of reference **WITH THEIR APPLICATION**. Applicants submitting **REVISED** applications for RCDA, FIRST and NRSA fellowships, must **AGAIN** submit letters of reference, or their applications will be returned **without review**.

IMPLICATIONS OF THE NEW "PROCUREMENT INTEGRITY" REGULATIONS ON THE RESEARCH ACTIVITIES OF THE COLLEGE

The Department of Defense, GSA and NASA have announced new regulations dealing with integrity in the procurement of products and services that are purchased for the federal government. While this policy was mainly developed for the purchase of equipment, weapons systems, etc., it includes all contracts with any agency of the federal government. Therefore, it is important to remember that these regulations apply when an application is being submitted for a contract. They do NOT apply when a faculty member is submitting an application for a GRANT.

When submitting a proposal for a contract, the regulations require that a faculty member and institution:

1. not participate in the development, preparation and issuance of the procurement solicitation (RFP). Obviously, this includes the evaluation of bids or proposals in response to the RFP, the selection of sources, and the conduct of the negotiation.

Consequently, when a faculty member is approached by a representative of the federal government to help in the development of an RFP, the faculty member should first determine if she/he would be interested in submitting an application in response to the proposed RFP. If so, the faculty member should decline participation in the development of the RFP.

2. not provide "money, gratuity, or other things of value," except as expressly permitted by agency regulations. Other things of value will include "gifts, favors, entertainment, hospitality, transportation, loan, or any tangible item or any intangible benefits, including discounts, passes, and promotional vendor training."

Consequently, when a site visit is made to the campus for review of a proposal that will result in a contract, the institution, faculty member, and/or their family members will not be allowed to provide transportation to or from the airport, lodging, or food to members from the review team. If the review team requests a meal during the site visit, the College will be required to charge for this service. Because of these additional requirements on what can be allowed during the site visits, it would be advisable for faculty members to discuss their plans for a site visit with the Associate Dean for Research.

While the regulations require that only the successful institution provide a certification dealing with procurement integrity, most agencies of the federal government are requiring that this new certification be submitted with the application. To make it easier for the investigator, the Research Office will prepare this certification to the granting agency when a faculty member is responding to a solicitation for a contract.

PROGRAM ANNOUNCEMENTS

National Institute of Dental Research: "Biology of Tooth Movement and Eruption" - the objective of this program is to solicit grant applications to elucidate the biological mechanisms involved in tooth movement, tooth eruption and root resorption. Support for this program will be through research grants, including project grants (RO1), small grants (RO3), and FIRST awards (R29.) **Deadline: February 1, June 1, and October 1, 1990.**

CONTACT:

NIDR
Cranofacial Anomalies
Pain Control & Behavioral Research Branch
Westwood Bldg., Rm. 506
Bethesda, MD 20892
(301) 496-7807

National Cancer Institute: "DCT Small Grants to Stimulate Correlative Laboratory Studies and Innovative Clinical Trials" - Aims of this initiative are twofold: 1) provide a mechanism for accelerated review and funding of innovative correlative studies relevant to clinical trials; and 2) stimulate pilot clinical studies with novel laboratory correlations so as to foster the development of interaction between basic science laboratories and clinicians performing clinical trials. Studies should be proposed for a tightly focused, integrated research program at the interface of laboratory experimentation and concurrent clinical trials. The laboratory studies must have been demonstrated to be applicable to tissue samples and/or body fluids, etc. from patients entered into clinical trials. Evidence of statistical support should be included to insure proper correlation of assay parameters with clinical outcomes. Some examples that would come under this RFA would be: 1) salary for an additional technician; 2) funds for additional supplies or small equipment required for the project; 3) salary support for data management, data entry and coordination of sample procurement; and 4) funds for the collection and shipment of specimens. **Letter of Intent due 01/08/90. Proposal due 02/09/90.** **CONTACT:** Dr. Roy S. Wu (301) 496-8866.

NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT "Genetic and Biochemistry of Cell Fate Determination in Development: Cytoplasmic Determinants, Cellular Induction and Genomic Imprinting": The primary goal of this RFA is to support a group of projects that are devoted to defining the underlying genetic basis, biochemical nature, and molecular mode of action of the processes that can influence cell fate, including cytoplasmic determinants, induction, and genetic imprinting. While the major interest rests in how such processes operate during mammalian development, other experimental model systems that can contribute to our understanding of the fundamental principles that apply to human development are strongly encouraged. The NIGMS also

supports research leading to an understanding of fundamental principles underlying genetics and cell biology, especially in model systems. Therefore, a secondary assignment to NIGMS for applications responsive to this RFA might be appropriate. **DEADLINE: 02/08/90. CONTACT:** Joel M. Schindler, Ph.D., (301) 496-5541.

AMERICAN FEDERATION FOR CLINICAL RESEARCH - "The Nellie Westerman Prize" purpose of this Prize is to stimulate creative approaches to analyzing and perhaps resolving ethical problems encountered by investigators in the course of planning or conducting research involving human subjects. A further purpose of the Prize is to disseminate the fruits of these analyses. The Prize (\$2,500) will be awarded to the author(s) of the best paper in the judgment of the Award Committee submitted in competition. **DEADLINE: 02/15/90. CONTACT:** Pamela B. Davis, M.D., Ph.D., AFCR National Office, 6900 Grove Road, Thorofare, NJ 08086-9447.

AMERICAN FEDERATION FOR AGING RESEARCH, INC. "Biomedical Research in Gerontology and Geriatrics" AFAR offers one year grants, up to \$25,000 each, in support of clinical and basic research on all biomedical aspects of aging. AFAR is especially interested in research dealing with the basic mechanism of aging, the role of aging in predisposing to disease and such age-related disorders as incontinence, memory loss and confusion, and sensory failure. Proposals from investigators entering the field of aging are especially welcome. Applicants must be citizens or permanent residents of the US with a medical or Ph.D. degree. **DEADLINE: 01/15/90. CONTACT:** (212) 570-2090.

AMERICAN INSTITUTE FOR CANCER RESEARCH "Small Grants" - The Institute funds feasibility studies in search of new hypotheses that might help to understand the role of dietary constituents in the etiology, prevention or treatment of cancer. The funding limit for small grants is \$10,000 for total direct costs for one year, non-renewable. **DEADLINE: 02/01/90. CONTACT:** (202) 328-7744.

AMERICAN DIABETES ASSOCIATION, INC. "Research Development Award": provides a maximum of \$65,000/year for three years to support young investigators with 2-5 years of postdoctoral research experience. The funds are to be divided between salary (restricted to a maximum of \$40,000/year) and other grant support (restricted to a maximum of \$35,000/year). Applicants must be citizens of the US or permanent residents and hold independent faculty positions at a US university-affiliated institution. **DEADLINE: 02/02/90. CONTACT:** (703) 549-1500.

TEXAS FEDERATION OF BUSINESS AND PROFESSIONAL WOMEN'S CLUBS: "Maffett Fellowship Fund" - preference in giving awards will be given to graduates of Texas medical schools. Applications are accepted from and awards given to, one or more of the following: 1) a woman graduate of a recognized medical school for use in post-graduate or research work in medical fields; 2) woman who has been awarded a Ph.D. from a Texas university who is doing research in a medical field; 3) woman who needs financial aid for the first year in establishing a family practice in a rural area with a population not exceeding 5,000; and 4) a fourth year female medical student for completion of a medical degree in an accredited medical school in the state of Texas. **DEADLINE: 01/15/90. CONTACT:** (214) 467-0712.

EXTERNAL PROPOSALS FUNDED

12/01/89 - 01/15/90

EDWARD E. ELKO, PH.D. and

THOMAS YORIO, PH.D.

(Pharmacology) "Angiotensin II antagonist as an ocular hypotensive drug" E.I. Dupont DeNemours & Co., 11/01/89 - 04/30/90 \$23,740.

EGEENEE Q. DANIELS, D.V.M.

(Laboratory Animal Medicine) "Continuing Medical Research Education" CareFlite 12/01/89 - 11/30/90 \$200.

ROBERT W. GRACY, PH.D.

(Biochemistry) "Identification and characterization of specific enzymes in ocular tissue" Alcon Laboratories, Inc. Open \$2,000.

ROBERT W. GRACY, PH.D.

(Biochemistry) "Pyrollidone carboxylic acid and urocanic acid in the stratum corneum during aging and in xerosis" Johnson & Johnson Consumer Products, Inc., Open \$2,100.

ANDRAS G. LACKO, PH.D.

(Biochemistry) "International symposium on reverse cholesterol transport and coronary heart disease" TAB, Open \$5,000.

EUGENE E. QUIST, PH.D.

(Pharmacology) "Regulation of cardiac function by muscarinic agonists" NIH - NHLBI, 12/01/89 - 11/30/90 \$83,221.

PETER B. RAVEN, PH.D. (Physiology)

"Exercise training and baroreceptor function" NIH - NHLBI (12/01/89 - 11/30/90) \$103,621.

BERNARD R. RUBIN, D.O. (Medicine)

"Prinomide -35 Clinical Study" CIBA-

GEIGY, Open \$300.

KONRAD W. SCHEEL, PH.D.

(Physiology) "Mechanism of coronary vascular adaptation" NIH - NHLBI, 12/01/89 - 11/30/90. \$143,761.

JUDY WILSON, PH.D. (Physiology and

HBO) "Hyperbaric Medicine and Physiology Research" Private Donation (open) \$51,297.

TOTAL AWARDS

\$415,240

EXTERNAL APPLICATIONS

SUBMITTED

12/01/89 - 12/31/89

PATRICIA A. GWIRTZ, PH.D.

(Physiology) "Ischemia-induced cardio-coronary reflex during exercise" AOA \$26,454.

ROBERT W. GRACY, PH.D.

(Biochemistry) "Molecular basis for abnormal proteins in aging cells" NIH - NIA \$148,200.

JERRY L. DICKEY, D.O. (Manipulative

Medicine) "Making manipulation specific: a manipulative medicine experience for the rural physician" AOA \$14,894.

THOMAS YORIO, PH.D.

(Pharmacology) "Cellular mechanism(s) of alpha 2 agonist-induced ocular hypotension" American Health Assistance Foundation \$24,968.

EDWARD E. ELKO, PH.D. "Role of prostaglandins in the ocular hypotensive actions of alpha 2 agonists" AOA \$21,668.

EDWARD L. ORR, PH.D. (Anatomy and Cell Biology) "Effect of GM1 on chronic recurrent experimental autoimmune encephalomyelitis" Fidia Research Laboratories, Padova, Italy \$17,189.

BRIAN FORESMAN, D.O. (Medicine) "Chronic and acute effects of hyperbaric oxygen therapy in treating migraine cephalgia" AOA \$19,340.

PATRICK CAMMARATA, PH.D. (Anatomy and Cell Biology) "A mechanism for sugar cataract formation in lens cells" AOA \$19,000.

JOHN LICCIARDONE, D.O. (PH/PM) "A trial of intensive clinic-based health risk appraisal" AOA \$16,819.

BERNARD R. RUBIN, D.O. (Medicine) "Rheumatology Research and Education Grant" ArthritisCare Centers of America, Inc. \$90,000.

RAYMOND M. PERTUSI, D.O. (Medicine) "Rheumatology Research and Education Grant" ArthritisCare Centers of America, Inc. \$90,000.

PATRICK N. SHAKLEE, PH.D. (Biochemistry) "Conversion of bacteriophage QB RNA-dependent RNA-polymerase into a reverse transcriptase by site-directed amino acid alterations" NSF \$29,250.

TOTAL REQUESTED \$517,782

PUBLICATIONS AND PRESENTATIONS

Jin, Y., Elko, E.E., Tran, T. and Yorlo, T. (Pharmacology) "Inhibition of adenylate cyclase in bovine ciliary and rabbit iris-ciliary body to α 2-adrenergic agonists" *J. Ocular Pharm.* 5:189-197 (1989.)

Yorlo, T. and N. Satumitra. (Pharmacology) "Contribution of the vasopressin V_1 receptor to its hydroosmotic response" *Biol. Cell* 66:7-12 (1989.)

Frazier, L.W. and T. Yorlo (Pharmacology) "Phospholipid changes during adaptation to acidosis in urinary bladder of *Bufo marinus*" *Proc. Soc. Exp. Biol. Med.* 190:339-343 (1989.)

H. Fred Downey, Ph.D. (Physiology) presented a research report titled "Myocardial PO_2 not MV_2 determines coronary vascular resistance." Co-authors were **H. Murakami, S.-J. Kim** and **A.G Williams.**

Michael J. Forster, Ph.D. (Pharmacology) presented a seminar to the Department of Microbiology, Arizona State University, Tempe, AZ titled "Autoimmunity and cognitive decline in aging." Dr. Forster also organized a satellite symposium at the meeting of the Society for Neuroscience titled "Neural mechanisms of behavior, animal models of human conditions." and presented "Behavioral and neural correlates of Autoimmunity."

S/D Ray D. Page (Pharmacology) made the following presentations: "Mezerein, a protein kinase C activator, inhibits acidification in a H^+ secreting epithelia" (Co-author **Thomas Yorlo, Ph.D.,** at the AOA

Research Conference.

"Adaptive changes in H⁺ secreting cells in amphibian epithelia" (Co-author **Thomas Yorlo, Ph.D.**) at the Southwest Society for Experimental Biology meeting, Houston, TX.

"Renal diseases in the black population" at Paul Quinn College, Waco, TX.

Thomas Yorlo, Ph.D. (Pharmacology)

"Possible role of protein kinase C in intramembrane particle aggregation and membrane fusion in toad urinary bladder epithelium" (Co-authors **A.J. Mia** (Pharmacology) and **Larry X. Oakford** (Anatomy and Cell Biology) at the American Society for Cell Biology meeting, Houston, TX.

Thomas Yorlo, Ph.D. (Pharmacology)

"Eicosanoid regulation of H⁺ transport in renal epithelia" to the Department of Cell and Molecular Biology of the Medical College of Georgia, Augusta, GA.