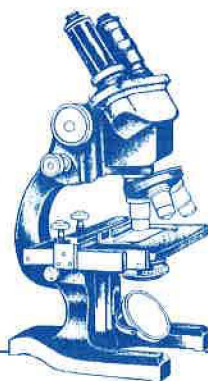


Research Notes

Volume 8, Number 2

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Funding Opportunities

American Osteopathic Association Grant Applications Due Dec. 1, Handbook Available

The 1992 Osteopathic Research Handbook (color coded blue) containing instructions for grant and pilot study applications is available in the Research Office. Applicants for grants and awards are required to use a current handbook. **Applications for grant and pilot study projects must be postmarked before 11:59 p.m. on December 1, 1992.** The AOA Bureau of Research encourages investigators to discuss their proposed projects with program officers while in the planning stages. These conversations can be of help in eliminating areas of duplication or in identifying general problems needing osteopathic research.

For further information contact: Konrad C. Retz, Assistant Director, Division of Research and Predoctoral Education, Department of Education, American Osteopathic Association, 142 E. Ontario Street, Chicago, IL 60611-2864, telephone 800-621-1773.

1993-94 Grant Application Packets Available from the American Heart Association, Texas Affiliate

Annual grant awards are made to support research in cardiovascular function and diseases— including stroke— or in related fundamental problems. Support is available for all basic disciplines, including

physiology, biochemistry and pathology, as well as for epidemiological, clinical and behavioral studies as they apply to the prevention or treatment of cardiovascular disease. Grant applications for 1993-94 funding will be accepted only on the 1993 forms. **Do not use older versions. Applications are pre-numbered; please do not let investigators share the same application.** Pay special attention to the "Guidelines and Instructions" packet. Talented new investigators are encouraged to apply. Applications will be considered from senior investigators if they are experiencing a funding hiatus or are substantially changing the direction of their careers. **Thirty hole-punched copies and the original application must be received at the AHA office by 5:00 PM, CST, January 15, 1993 to be eligible for funding.**

National Science Foundation Implements Duplicate Proposal Policy

After June 1, 1992, proposals submitted to programs within the Directorate for Biological Sciences (BIO) cannot be duplicates of proposals submitted to any other federal agency for simultaneous consideration. The only exception to this policy is proposals from beginning investigators who need to explore all opportunities for launching support of their research careers. Submission of distinctly different proposals by the same investigator to NSF as well as to other agencies would not be affected. In fact, such submissions are desirable, taking into account the program interests of different agencies.

Texas Research Enhancement Program

Faculty Research Grants are allocated to the Texas College of Osteopathic Medicine by the Texas Legislature through the Texas Research Enhancement Program and are administered by the associate dean for research according to the guidelines provided by the Faculty Research Committee. This committee recognizes the broad range of academic objectives in a medical college and the diversity of what may be termed research. First priority is given to junior faculty members and others who may be experiencing a temporary hiatus in external funding. An award is based on the anticipated merits of the proposed project as well as the record of prior scholarly or creative activities of the investigator, especially as demonstrated through publications and external grant activity. Generally, it is expected that research supported by a grant will result in publication or other means of scholarly presentation of the findings. In addition, it is expected that external funding will be obtained as a result of utilizing the Faculty Research Fund.

The review process consists of an assignment of reviewers to individual proposals followed by a panel meeting where a final priority score is established by the panel members. A written critique is provided for each principal investigator.



• RESEARCH AWARDS & GRANT SUBMISSIONS •

FACULTY RESEARCH AWARDS FOR SEPTEMBER 1, 1992 - AUGUST 31, 1993

Rafael Alvarez-Gonzales, Ph.D., (Department of Microbiology and Immunology), "Characterization of the Poly(ADP-ribose)polymerase Automodification Reaction with 3'-dNAD," \$6,000.

William W. Barrow, Ph.D., (Department of Microbiology and Immunology), "Examination of an Opportunistic Pathogen in AIDS Patients," \$5,000.

James L. Caffrey, Ph.D., (Department of Physiology), "Adrenergic Control of Myocardial Enkephalin," \$5,000.

Michael W. Emmett-Oglesby, Ph.D., (Department of Pharmacology), "Neurobiology Associated with Reinforcement and Drugs of Abuse," \$5,000.

Brian H. Foresman, D.O. (Department of Medicine), and **Eugene E. Quist, Ph.D.**, (Department of Physiology), "Altered Autonomic Receptor Signal Conduction with Training," \$4,220.

Stephen R. Grant, Ph.D., (Department of Biochemistry and Molecular Biology), "Hyperphosphorylation and the Control of Human B Cell Proliferation," \$4,800.

Robert R. Luedtke, Ph.D., (Department of Pharmacology), "Characterization of Renal D₂-Like Receptors," \$7,000.

Edward L. Orr, Ph.D., (Department of Anatomy and Cell Biology), "Arachnoid Barrier Cells and Cerebrospinal Fluid Outflow," \$4,935.

Eugene E. Quist, Ph.D., (Department of Pharmacology), "Regulation of Beta Adrenergic Receptor-Gs Coupling by NAD in Cardiac Sarcolemma," \$7,000.

Carolyn W. Quist, D.O., (Department of Obstetrics and Gynecology), "Regulation of Human Chorionic Vascular Tension by Arachidonic Acid and Cyclic Nucleotides," \$7,000.

Tony Romeo, Ph.D., (Department of Microbiology and Immunology), "Characterization of a Gene that Encodes a Novel Global Regulator of Bacterial Transcription," \$6,000.

Robert J. Wordinger, Ph.D., (Department of Anatomy and Cell Biology), **Steve P. Buchanan, D.O.**, (Department of Obstetrics and Gynecology), and **Stephen L. Putthoff, D.O.**, (Department of Pathology), "Immunolocalization of bFGF in Human Placenta," \$3,300.

Ming-chi Wu, Ph.D., (Department of Biochemistry and Molecular Biology), "Mechanism of Leukemia Cell Differentiation Induced by a New Differentiation Factor," \$3,000.

Total Awards: \$68,255

AWARDS FROM THE TEXAS INSTITUTE FOR RESEARCH AND EDUCATION ON AGING

James L. Caffrey, Ph.D., and **Barbara A. Barron, Ph.D.**, (Department of Physiology), "Enkephalins and the Aging Heart," 09/01/92 - 08/31/93, \$3,000.

S. Dan Dimitrijevic, Ph.D., (Department of Biochemistry and Molecular Biology), **John G. Mills, D.O.**, and **Judy Wilson, Ph.D.**, (Department of Public Health and Preventive Medicine), "Effect of Hyperbaric Oxygen on Epidermalization in Young and Old Skin Equivalents," 06/15/92 - 08/31/92, \$5,000.

Robert R. Luedtke, Ph.D., and **Harbans Lal, Ph.D.**, (Department of Pharmacology), "Neuroimmunologic Implications of Age-Related Autoimmunity," 09/01/92 - 08/31/93, \$3,000.

Peter B. Raven, Ph.D., and **Xiangrong Shi, Ph.D.**, (Department of Physiology), "Arterial and Cardiopulmonary Baroreflexes of the Elderly," 09/01/92 - 08/31/93, \$6,015.

Bhalchandra J. Kudchodkar, Ph.D. (Department of Biochemistry and Molecular Biology) and **Stephen Weis, D.O.**, (Department of Medicine), "Plasma Low and High Density Lipoprotein Subspecies in Aging," 09/01/92 - 08/31/93, \$4,500.

Total Awards: \$21,515

RECENT GRANT PROPOSAL SUBMISSIONS

William W. Barrow, Ph.D., (Department of Microbiology and Immunology), "Glycopeptidolipid Biosynthesis in *Mycobacterium avium* Complex," National Institutes of Health - National Institute of Allergy and Infectious Diseases, \$438,904.

Paul F. Cook, Ph.D., (Department of Microbiology and Immunology), sponsor for Mark T. Smith, "Studies of Malic Enzyme Using Alternate Substrates," Individual National Research Service Award Application, National Institutes of Health.

Sue G. Lurie, Ph.D., (Department of Medical Humanities), "Local Culture and Oral History in a Multi-Ethnic Urban Community," National Endowment for the Humanities, \$4,000.

Paula Sundstrom, Ph.D., (Department of Microbiology and Immunology), "Host Parasite Subunit Interactions in Oral Candidiasis," National Institutes of Health, \$544,208.

Tony Romeo, Ph.D., (Department of Microbiology and Immunology), "A New Global Regulatory System in Bacteria," National Institutes of Health, \$497,400.

James E. Turner, Ph.D., (Department of Anatomy and Cell Biology), "Retinal Pigment Epithelial Cell Transplantation: Studies Leading to Optimal Photoreceptor Cell Rescue," National Retinitis Pigmentosa Foundation, Inc., \$240,000.

Recent Research Activities

James L. Caffrey, Ph.D., Department of Physiology, visited the Physiology Department at the Ponce School of Medicine, Puerto Rico, where he presented a lecture on endogenous opioids to the first year medical class and a seminar entitled "Endogenous Opioid and the Autonomic Control of the Heart" to the basic science faculty.

Paul F. Cook, Ph.D., Chairman and Professor, Department of Microbiology and Immunology, attended the NIH Biochemistry Study Section Meeting in Washington, D.C., June 16-19. He also spent three weeks in Germany in July (supported by a grant from NATO) conducting research with Professor Klaus Schnackerz, and giving seminar presentations on "The Mechanism of O-acetylserine sulphydrylase from *Salmonella*" at the University of Würzburg and University of Halle. Cook and William Karsten, Science Associate, attended the 1992 Gordon Conference on Enzymes, Coenzymes and Metabolic Pathways at Meriden, N. H. and presented a poster entitled "Malic Enzyme: Tritium Isotope Effects with Alternative Dinucleotide Substrates and Divalent Metal Ions".

William W. Barrow, Ph.D., Department of Microbiology and Immunology, presented a paper titled "Structures, Morphology and Pathogenesis of *Mycobacterium avium*" at a special symposium "Frontiers In Mycobacteriology: *M. avium*, The Modern Epidemic" held at Vail, Colorado.

James E. Turner, Ph.D., Chairman and Professor, Department of Anatomy and Cell Biology, participated in the 10th International Congress on Eye Research, in Stressa, Italy, and presented a paper titled "RPE Transplants in Animal Models of Inherited Retina Dystrophy and Aging" as part of a symposium on retinal transplantation.

Faculty in the Department of Physiology recently attended the annual meeting of the Federation of the American Societies of Experimental Biology held in Anaheim, Calif. and made the following presentations (TCOM researchers are listed in boldface):

Shizukuda, Y., R.T. Mallet, S-C. Lee, and H. F. Downey. 1992. Hypoxic Preconditioning is as Effective as Ischemic Preconditioning for Preventing Myocardial Infarction. *FASEB. J.* 6: A1250.



New Publications Available in the Research Office

NIH/ADAMHA Extramural Programs, Funding for Research and Research Training, published August 1992 by the U. S. Department of Health and Human Services, Public Health Service, National Institutes of Health, is a compendium of the scientific programs of NIH/ADAMHA components that award grants, cooperative agreements and contracts. It indicates current areas of research emphasis, highlights special interests of each awarding component, and identifies specific NIH offices one may contact for further information about particular programs, policies and procedures.

The Texas Department of Health Funding Information Center recently published "**Private Sources of Funding for the Aged in Texas.**" a DIALOG computer search of "The Foundation Directory" database. It provides information on the largest foundations and corporations with an interest in funding projects for the aged in Texas or nationally. Another publication is a compilation of the HIV Funding Watch newsletter's recent series, "**The Search for Public Health Funding: De-Mystifying the Process.**"

The four articles covering federal, state, foundation, and corporate funding research have been compiled in a single handout.

Limited copies of these publications are available from the TCOM Research Office.

"Research Proposals, A Guide to Success" by Thomas E. Ogden is a new paperback book on how to write winning proposals to the National Institutes of Health and the National Science Foundation. This book is a must for investigators trying to win their first grant. It was written by a real pro who has had many years of NIH support and participated in the review process as a member of a study section.

A copy is available for consultation in the Research Office.

"How to Write Proposals that Produce" by Joel P. Bowman and Bernadine P. Branchaw is a new paperback book that offers excellent suggestions on how to improve writing grammar, style, format and appearance. There also is a chapter on oral presentations of proposals.

A copy is available for consultation in the Research Office.

"The Foundation Directory, 1992 Edition" This publication documents foundations meeting the criteria of at least \$1 million in assets or \$100,000 in annual giving.

Entries for 8,729 foundations represent over one-fourth of all active grantmaking foundations in the United States. Together they hold assets of more than \$134 billion and awarded grants totaling more than \$8 billion in the latest year of record.

Ho, T.T., T. Barnes, J.D. Johnson, A. G. Williams, Jr., and H.F. Downey. 1992. Effects of Smokeless Tobacco on Regional Vascular Conductance in the Brain of Anesthetized Dogs. *FASEB. J.* 6: A1263.

Lee, S-C., Y. Shizukuda, and H.F. Downey. 1992. Down-Regulation of Myocardial Oxygen Demand is Medicated by Endogenous Adenosine in Isoproterenol-Stimulated Myocardium. *FASEB. J.* 6: A1266.

Barnes, T., T. Ho, J. D. Johnson, A. G. Williams, Jr., and H.F. Downey. 1992. Dose Related Effects of Smokeless Tobacco on Blood Flow to Oral Tissues of the

Anesthetized Dog. *FASEB. J.* 6: A1473.

Downey, H.F., A.G. Williams, Jr., and J.F. Gaugl. 1992. Arterial-Venous (AV) Shunt-Mediated Increase in Venous Return Causes Apparent Right Coronary (RC) Pressure-Flow Autoregulation. *FASEB. J.* 6: A1504.

Van Wylen, D.G.L., **A.G. Williams, Jr., and H.F. Downey.** 1992. Sustained Increase in Coronary Blood Flow (CBF) During Regional Myocardial Hypoxemia (HY) without Increased Interstitial Fluid (ISF) Adenosine (ADO). *FASEB. J.* 6: A1802.

• RECENT PUBLICATIONS •

Faculty in the Department of Anatomy and Cell Biology have had a number of papers published recently (TCOM researchers are listed in boldface):

Roque, R.S., R.B. Caldwell, and M.A. Behzadian. 1992. Cultured Muller Cells have High Levels of Epidermal Growth Factor Receptors. *Investigative Ophthalmology & Visual Science*. 33: 2587-2595.

Agarwal, N., I. Nir, and D. S. Papermaster. 1992. Expression of Opsin and IRBP Genes in Mutant RCS Rats. *Exp. Eye Res.* 54: 545-554.

Swaroop, A., J. Xu, H. Pawar, A. Jackson, C. Skolnick, and **N. Agarwal**. 1992. A Conserved Retina-Specific Gene Encodes a Basic Motif / Leucine Zipper Domain. *Proc. Natl. Acad. Sci.* 89: 266-270.

Gaur, V., **N. Agarwal**, L. Li, and **J.E. Turner**. 1992. Maintenance of Opsin and S-antigen Gene Expression in RCS Dystrophic Rats Following RPE Transplantation. *Exp. Eye Res.* 54: 91-101.

Gaur, V.Y. Lieu, and **J.E. Turner**. 1992. RPE Conditioned Medium Stimulates Photoreceptor Cell Survival, Neurite Outgrowth and Differentiation in Vitro. *Exp. Eye Res.* 54: 645-659.

A. D. Seaton and **J. E. Turner**. 1992. RPE Transplants Stabilize Retinal Vasculature and Prevent Neovascularization in the RCS Rat. *Investigative Ophthalmology and Visual Science*. 33: 83-91.

Yamaguchi, K., K. Yamaguchi, R. W. Young, V. P. Gaur, C. M. Greven, M. M. Slusher, and **J. E. Turner**. 1992. Vitreoretinal Surgical Technique for Transplanting Retinal Pigment Epithelium in Rabbit Retina. *Japan. J. Ophthalmol.* 36: 142-150.

Department of Pharmacology, Prather, P. L., **M. J. Forster**, and **H. Lal**. 1992. Enhancing Effect of RO15 4513: A Comparison with Flumazenil. *Neuropharmacology* 31: 299-306.

Samuel T. Coleridge, D.O., Professor and Chairman, (Department of General and Family Practice), Bell, C. and **S. T. Coleridge**. 1992. A Comparison of Diagnostic Peritoneal Lavage and Computed Tomography (CT Scan) in Evaluation of the Hemodynamically Stable Patient with Blunt Abdominal Trauma. *Journal of Emergency Medicine*. 10: 275-280.

Walter J. McConathy, Ph.D., (Department of Medicine), recently published the following papers (TCOM researchers in boldface):

McConathy, W. J., J.C. Gesquiere, H. Bass, A. Tantar, J-C. Fruchart, and C-S. Wang. 1992. Inhibition of Lipoprotein Lipase Activity by Synthetic Peptides of Apolipoprotein C-III. *Journal of Lipid Research*. 33: 995-1003.

Wang, C-S., J. Hartsuck, and **W.J. McConathy**. 1992. Structure and Functional Properties of Lipoprotein Lipase. *Biochim. Biophys. Acta*. 1123: 1017.

McConathy, W. J. 1992. Interactions of Lp(a) with Subendothelial Cell Matrix. Pp. 119-122. 9th International Symposium on Atherosclerosis. Eds. O. Stein, S. Eisenberg, and Y. Stein. Published by R. & L. Creative Communication Ltd., Tel Aviv, Israel.

NOTICE TO ALL GRANT HOLDERS

Unless the employee declines coverage on or before the first day of employment, employees are automatically enrolled in the HealthSelect plan and the basic \$5,000 life insurance coverage. If the employee declines coverage after the first day of employment, this change will go into effect on the first day of the month following the date the enrollment form is signed. In this case, the employee would have at least one month of insurance coverage charged to the grant account.

New National Science Foundation Grant Application Brochure

NSF has revised the "Grants for Research and Education in Science and Engineering" (NSF 92-89, October, 92; replaces 90-77) brochure and related proposal and grant forms, **effective October 1, 1992**. Conformance to the guidelines will be strictly enforced. Some of the items that should be considered are as follows: 1) the 15-page limit (including a limit of five pages on the results of prior NSF support) on the project narrative applies unless otherwise stated; 2) encouragement of submission of longer duration grant proposals given a "norm" of three years for grant award durations; 3) biographical sketches limited to two pages per investigator; 4) special guidelines for group proposals and equipment proposals; 5) the proposal cover sheet has been revised and now consists of two pages. **This NSF application guide is color-coded red and copies are available from the Research Office.**

New PHS 416-1 Application Kit

The revised PHS 416-1 Application Kit, is available for use in applying for the Public Health Service Individual National Research Service Award. This revision, dated 10/91, and approved through 10/31/94, replaces the current version that was revised 7/88 and reprinted with a 4/89 date. **Applicants submitting for deadlines after September, 1992 must use the new form.**

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