

Research Notes



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Former ADAMHA Research Institutes Join the NIH

Effective October 1, 1992 the Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA) was reorganized into the Substance Abuse and Mental Health Services Administration (SAMHSA). The three ADAMHA research institutes – the National Institute of Alcohol Abuse and Alcoholism (NIAAA), the National Institute on Drug Abuse (NIDA), and the National Institute of Mental Health (NIMH) – were transferred to the National Institutes of Health.

This reorganization would bring about a number of scientific benefits, including integrating neuroscience and behavioral research into the broad spectrum of medical science studied at NIH and fostering interactions among these and other scientific disciplines. It also will strengthen public perceptions of mental illness and addictive behavior as important disorders on the nation's health research agenda.

This reorganization has safeguards that

initially preserve much of ADAMHA's current system. For example, legislation prohibits the merger of NIAAA, NIDA, and NIMH either with each other or with any other NIH institute for five years. These Institutes also will retain their existing peer review and advisory council systems for four years. Each Institute will be required to spend at least 15 percent of its research funds on services research. The three Institutes will retain their current budgets and, like the National Cancer Institute, will report directly to the Congress and the administration, in addition to going through the NIH director.

Unlike the NIH Peer Review System, ADAMHA has no equivalent Division of Research Grants Study Sections that is principally organized by research discipline, thus crossing multiple NIH extramural funding components. Instead, ADAMHA does virtually its entire peer review within each institute.

Availability of Funds for the 1992 Biomedical Research Support Grants (BRSG)

We are proud to inform TCOM researchers that NIH has funded our BRSG application for \$50,000.

The fiscal year 1992 Biomedical Research Support Grant Program appropriation reduced the amount of funds available for this program to \$5,204,000, a decline from \$55 million in FY 1989. Because the amount of funds available was at historically low levels, the dollars distributed on a formula basis to the same numbers of eligible institutions would have been too few to assure maximum utility of the funds. In FY 1991 there was \$22 million distributed to 628 grantees. For FY 1992 \$5.2 million dollars will be distributed on a competitive basis to an estimated 104 grantees (\$50,000 for each award) for a success rate of about one out of six. All eligible institutions had to compete for these funds during this funding cycle. The TCOM institutional BRSG proposal was prepared with a project narrative that included the results of prior BRSG support, proposed uses of FY 1992 funds, institutional commitment, and an administrative plan.

Applications are solicited from faculty on tenure and non-tenure track to compete for the 1992-93 BRSG funds.

Application forms are available from the Research Office, Med Ed 1, Room 860. The deadline for receipt of the BRSG applications is 5 p.m., Dec. 1, 1992.

Special Short Course Offered

The TCOM Research Office served as host for a special short course titled "**Medicine and Science Education K-12**" offered at the joint National Science Teachers Association and Conference for the Advancement of Science Teaching Regional Meeting Oct. 15, 1992. More than 30 science teachers participated in this course given by the Texas Society for Biomedical Research.

TCOM faculty gave the following presentations:

"Advances in Veterinary Medicine" by **Egeence Q. Daniels, DVM**, Director, TCOM Laboratory Animal Medicine and Animal Care Facilities;

"Advances in Drug Abuse Research" by **John D. Lane, Ph.D.**, Professor, Department of Pharmacology;

continued on page 3

• RESEARCH AWARDS & GRANT SUBMISSIONS •

RECENT TCOM AWARDS

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.

James L. Caffrey, Ph.D., (Department of Physiology), "Health Careers Opportunity Program," Department of Health and Human Services - Division of Disadvantaged Assistance, 09/01/92 - 08/31/93, \$124,514.

Paul F. Cook, Ph.D., (Department of Microbiology and Immunology), "Study of Kinetic and Chemical Mechanisms of Enzymes," 09/01/92 - 08/31/93, \$139,118.

Richard A. Easom, Ph.D., (Department of Biochemistry and Molecular Biology), "The Role of Myosin Light Chain Kinase in Insulin Secretion," Juvenile Diabetes Foundation International, 09/01/92 - 08/31/93, \$49,000.

Michael W. Emmett-Oglesby, Ph.D., (Department of Pharmacology), "ADAMHA Small Instrumentation Program," Alcohol, Drug Abuse and Mental Health Administration - National Institute on Alcohol Abuse and Alcoholism, 09/30/92 - 08/31/93, \$23,309.

Michael W. Emmett-Oglesby, Ph.D., (Department of Pharmacology), "Tolerance to Discriminative Stimulus Effects of Ethanol," National Institutes of Health - National Institute on Alcohol Abuse and Alcoholism, 09/30/92 - 08/31/93, \$119,787.

Michael J. Forster, Ph.D., (Department of Pharmacology), "Assessment of Potential Cocaine Treatment Medications in Rodents," Alcohol, Drug Abuse and Mental Health Administration - National Institute on Drug Abuse, 09/30/92 - 03/31/93, \$347,775.

Stephen R. Grant, Ph.D., (Department of Biochemistry and Molecular Biology),

"HK1 Project," Genesys Pharma, Inc., 10/01/92 - 08/30/93, \$27,500.

Ben G. Harris, Ph.D., (Research Office), "Biomedical Research Support Grant," Institutional Award from the National Center for Research Resources - National Institutes of Health, 09/30/92 - 09/29/93, \$50,000.

Harbans Lal, Ph.D., (Department of Pharmacology), "Pharmacologic Treatment of Ethanol Withdrawal," Alcohol, Drug Abuse and Mental Health Administration - National Institute on Alcohol Abuse and Alcoholism, 09/30/92 - 08/31/93, \$193,204.

Robert R. Luedtke, Ph.D., (Department of Pharmacology), "Regulation of D₂ Dopamine Receptors," Schizophrenia Research Program of the Benevolent Foundation, 09/01/92 - 08/31/93, \$34,500.

John C. Licciardone, D.O., (Department of Public Health and Preventive Medicine), "Analyses of Successful Components of Institution-Wide Drug Prevention Programs in Higher Education," U.S. Department of Education - Fund for the Improvement of Postsecondary Education (Drug Prevention Program), 09/01/92 - 08/31/93, \$60,609.

Walter J. McConathy, Ph.D., (Department of Medicine), "Interactions of Lp (a) with Subendothelial Cell Matrix," National Institutes of Health - National Heart, Lung, and Blood Institute, 09/01/92 - 07/31/93, \$139,605.

Robert T. Mallet, Ph.D., (Department of Physiology), "Small Instrumentation Grant," National Institutes of Health - National Heart, Lung, and Blood Institute, 09/01/92 - 08/31/93, \$33,000.

Wayne L. Nicholson, Ph.D., (Department of Microbiology and Immunology), "Ultraviolet Damage Repair in *Bacillus subtilis* spore DNA," James A. Shannon Director's Award, National Institutes of Health - National Institute of General Medical Sciences, 09/30/92 - 09/29/93, \$50,000.

Peter B. Raven, Ph. D. and Craig G. Crandall, Graduate Student, (Department of Physiology) "Effects of Detraining on Baroreflex Regulation of Blood Pressure," Graduate Student Researchers Program - National Aeronautics and Space Administration, 09/01/92 - 08/31/93, \$22,000.

Paula Sundstrom, Ph.D., (Department of Microbiology and Immunology), "Proteins of *Candida albicans*, an AIDS-Related Pathogen," National Institutes of Health - National Institute of Dental Research, 09/30/92 - 09/29/93, \$106,601.

Ming-chi Wu, Ph.D., (Department of Biochemistry and Molecular Biology), "Molecular Cloning and Expression of a New Leukemia Differentiation," GEM Biomedical, Inc., 10/01/92 - 09/30/93, \$40,000.

Total Funding Awarded: \$1,724,075



RECENT GRANT PROPOSAL SUBMISSIONS

Neeraj Agarwal, Ph.D., (Department of Anatomy and Cell Biology), "Isolation of Retinal Pigment Epithelial-Specific cDNAs," Texas Research Enhancement Program - Faculty Research Grant, \$7,500.

John R. Bowling, D.O., (Department of General and Family Practice), "Predoc-toral Training in Family Medicine," Department of Health and Human Services - Health Resources and Services Administration - Bureau of Health Professions, \$660,949.

Paul F. Cook, Ph.D., (Department of Microbiology and Immunology), "Mechanism of the B₆ Enzyme O-Acetylserine Sulfhydrylase," National Science Foundation, \$1,136,422.

H. Fred Downey, Ph.D., (Department

• RESEARCH AWARDS & GRANT SUBMISSIONS •

of Physiology), "Watershed Zones in the Coronary Circulation," National Institutes of Health - National Heart, Lung and Blood Institute, \$588,025.

Michael W. Emmett-Oglesby, Ph.D., (Department of Pharmacology), "Tolerance to the Stimulus Properties of Cocaine," National Institutes of Health - National Institute on Drug Abuse, \$834,321.

Robert W. Gracy, Ph.D., (Department of Biochemistry and Molecular Biology), "Molecular Basis for Abnormal Proteins in Aging Cells," Fogarty International Research Collaboration Awards, National Institutes of Health, \$35,416.

Patricia A. Gwartz, Ph.D., (Department of Physiology), "Cardiovascular Adaptations to Exercise Training," National Institutes of Health - National Heart, Lung, and Blood Institute, \$1,497,201.

Brent M. Jones, Ph.D., (Office of Student Affairs/Admissions), "Health Careers Opportunity Program," Department of Health and Human Services - Division of Disadvantaged Assistance, \$532,702.

John D. Lane, Ph.D., (Department of Pharmacology), "Tolerance to the Reinforcing Effects of Alcohol," National Institutes of Health - National Institute on Alcohol Abuse and Alcoholism, \$184,534.

Robert R. Luedtke, Ph.D., (Department of Pharmacology), "Role of Autoimmunity in Age-Related Cognitive Decline," National Institutes of Health - National Institute on Aging, \$408,314.

Robert R. Luedtke, Ph.D., (Department of Pharmacology), "Characterization of D₄ Dopamine Receptors," National Alliance for Research on Schizophrenia and Depression, \$60,000.

Robert T. Mallet, Ph.D., (Department of Physiology), "Energetic Support of Post-Ischemic Cardiac Performance," First Independent Research Support and Transition (FIRST) Award, National Institutes of Health - National Heart, Lung, and Blood Institute, \$456,769.

Wayne L. Nicholson, Ph.D., (Department of Microbiology and Immunology), "Ultraviolet Damage Repair in *Bacillus subtilis* Spore DNA," National Institutes of Health - National Institute of General Medical Sciences, \$472,567.

Frank J. Papa, D.O., Ph.D., (Department of Medical Education), "An Intelligent Computer-Based Instructional Program Designed to Assure the Effective Development of Diagnostic Capabilities in Medical Students," U.S. Department of Education - Fund for the Improvement of Post-Secondary Education, \$442,172.

Eugene E. Quist, Ph.D., (Department of Pharmacology), "Regulation of Cardiac Function by Receptor Agonists," National Institutes of Health - National Heart, Lung and Blood Institute, \$740,526.

Rouel S. Roque, M.D., (Department of Anatomy and Cell Biology), "The Effects of Microglia on Müller Cell Proliferation and Chemotaxis," Texas Research Enhancement Program - Faculty Research Grant, \$7,500.

Rouel S. Roque, M.D., (Department of Anatomy and Cell Biology), "The Role of Microglial Cells in Vascular Remodeling," American Health Assistance Foundation, \$15,000.

Bernard R. Rubin, D.O., (Department of Medicine), "Double-Blind Parallel Group Comparison Study of the Safety and Efficacy of Oxaprozin 600 mg TID and Naproxen 500 mg TID in the Treatment of Moderate to Severe Osteoarthritis of the Knee," G. D. Searle & Company, \$52,020.

Konrad W. Scheel, Ph.D., (Department of Physiology), "The Coronary Venous System," National Institutes of Health - National Heart, Lung and Blood Institute, \$594,147.

Daniel J. Schneider, M.D., M.P.H., (Executive Director, College for Public Health and Public Health Policy), "College for Public Health and Public Health Policy Planning and Organization Grant," Sid W. Richardson Foundation, \$200,000.

Daniel J. Schneider, M.D., M.P.H., (Executive Director, College for Public Health and Public Health Policy), "Forging a Public Health/Community/Education Alliance: The Development of a Collaborative Plan for Integrating Public Health, Education and Community Resources to Assure Healthier Lives for North Texas Families," The Anne Burnett and Charles Tandy Foundation, \$50,000.

James E. Turner, Ph.D., (Department of Anatomy and Cell Biology), "Retina Wound Repair: Graft and Trophic Phenomena," National Institutes of Health - National Eye Institute, \$206,940.

Robert J. Wordinger, Ph.D., (Department of Anatomy and Cell Biology), "Cell Biology of Endometrial Basic FGF and FGFR-1 (flg) Protein," National Institutes of Health - National Institute of Child Health and Human Development, \$576,215.

Ming-chi Wu, Ph.D., (Department of Biochemistry and Molecular Biology), "Molecular Cloning and Expression of a New Leukemia Differentiation," GEM Biomedical, Inc., \$40,000.

Total Funding Requested: \$9,799,240



Short Course continued

"Developing Alternatives to Animal Testing" by **Robert W. Gracy, Ph.D.,** Chairman and Professor, Department of Biochemistry and Molecular Biology;

"Science Learning and Investigational Center for Kids (SLICK)" by **Thomas Yorio, Ph.D.,** Professor, Department of Pharmacology.

The TCOM Research Office staff coordinated the local arrangements for this event.

• RECENT RESEARCH ACTIVITIES •

Neeraj Agarwal, Ph.D., Department of Anatomy and Cell Biology, was a speaker at the Ocular Cell and Molecular Biology Symposium held in Dallas, Texas. His paper was titled "Isolation and Molecular Characterization of Retinal Pigment Epithelium (RPE) Specific cDNAs." He also presented a seminar in the TCOM Seminar Series titled "Molecular Genetics of Retinal Dystrophies."

Paul F. Cook, Ph.D., Professor and Chairman, Department of Microbiology and Immunology, presented a paper titled "Kinetic and Chemical Mechanisms of the Isozymes of O-Acetyl-Serine Sulphydrylase" at the 7th Pan American Association of Biochemical Societies Congress held at Ixtapa, Mexico. He also co-chaired a symposium on "Mechanisms of Enzyme Action" held in honor of Randolph T. Wedding, Ph.D., Professor of Biochemistry, at the University of California, Riverside. Dr. Cook presided over the scientific session and gave a paper titled

"The Mechanism of O-Acetylserine Sulphydrylase."

Harbans Lal, Ph.D., Professor and Chairman, Department of Pharmacology, co-chaired a mini-symposium at the Second International Symposium on Serotonin held in Houston, Texas. His presentation was titled "Serotonin Mechanisms in Ethanol Abuse."

Walter J. McConathy, Ph.D., Department of Medicine and Director, Division of Clinical Research, was an invited speaker at the Second International Lp(a) Conference, New Orleans, Louisiana. His presentation was titled "Interactions of Lp(a) with Other Lipoproteins."

A poster was presented at the same meeting by **W. J. McConathy**, M. Tavella, J. Tomasek, E. Mills, and O. Mercuri titled "Differences in Fatty Acid Composition and Collagen Lattice Contraction Activity of Lp(a) and LDL2."

Thomas Yorio, Ph.D., Department of Pharmacology, was an invited speaker at the International Congress of Eye Research in Stressa, Italy. His paper, titled "Calcium Signalling in the Anterior Segment of the Eye," was co-authored with **Annita Verstappen** (Pharmacology Graduate Student), **Dan Dimitrijevic, Ph.D.**, Department of Biochemistry and Molecular Biology and **Patrick Cammarata, Ph.D.**, Department of Anatomy and Cell Biology. Dr. Yorio and Verstappen recently had an article published in the Tarrant County Physician titled "New Developments in the Drug Treatment of Glaucoma."

Robert J. Wordinger, Ph.D., Department of Anatomy and Cell Biology, presented a paper titled "Immunolocalization of Basic Fibroblast Growth Factor During the Peri-Implantation Period in the Mouse," at an international meeting on the Endocrinology of Embryo-Endometrial Interactions held in Bordeaux, France.

• RECENT PUBLICATIONS •

Faculty in the Department of Physiology have had a number of papers published recently. TCOM researchers are listed in boldface:

Gwartz, P. A., J. M. Dodd-o, H. F. Downey, H. J. Mass, B. A. Barron, A. G. Williams, Jr., and C. E. Jones. 1992. Effects of Coronary Alpha-1-Constriction on Transmural Left Ventricular Flow and Contractile Function. *Am. J. Physiology*, 262 (Heart, Circ. Physiology 31): H965-H972.

Kang, Y. H., **R. T. Mallet**, and R. Bün-ger. 1992. Coronary Autoregulation and Purine Release in Normoxic Heart at Various Cytoplasmic Phosphorylation Potentials: Disparate Effects of Adenosine. *European Journal of Physiology* 421: 188-199.

Lee, S-C, R. T. Mallet, Y Shizukuda, A. G. Williams, Jr., and H. F Downey. 1992. Canine Coronary Vasodepressor Responses to Hypoxia are Attenuated but

not Abolished by 8-phenyltheophylline. *Am. J. Physiology*. 262 (Heart Circ. Physiology 31): H955-H960.

Mallet, R. T., Y.H. Kang, N. Mukohara, and R. Bün-ger. 1992. Use of Cytosolic Metabolite Patterns to Estimate Free Magnesium in Normoxic Myocardium. *Biochimica et Biophysica Acta* 1139: 239-247.

Shizukuda, Y., R. T. Mallet, S-C. Lee, and H. F. Downey. 1992. Hypoxic Preconditioning of Ischemic Canine Myocardium. *Cardiovascular Research*, 26: 534-542.

Faculty in the Department of Pharmacology recently have authored the following publication:

Forster, M. J. and H Lal. 1992. Within-subject Behavioral Analysis of Recent Memory in Aging Mice. *Behavioral Pharmacology* 3: 337-349.

Updated TCOM Institutional Fact Sheet Available

The TCOM Institutional Fact Sheet (color coded blue) has been updated to include the most recent information as of September, 1992. This information is provided for use in preparing proposals to external sponsors.

Copies are available in the Research Office.

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