

## JEFFRESS RESEARCH GRANT AWARDS

The Allocations Committee of the Thomas F. and Kate Miller Jeffress Memorial Trust has announced the award of Jeffress Research Grants to the institutions listed below to support the research of the investigator whose name is given. The Jeffress Trust, established in 1981 under the will of Robert M. Jeffress, a business executive and philanthropist of Richmond, supports research in chemical, medical and other natural sciences through grants to non-profit research and educational institutions in the Commonwealth of Virginia. The Jeffress Research Grants being announced here have been awarded in 1990.

The Jeffress Memorial Trust is administered by Sovran Bank, N.A. Additional information about the program of the Trust may be obtained by writing to: Advisor, Thomas F. and Kate Miller Jeffress Memorial Trust, Trust Department, Sovran Bank, N.A., P.O. Box 26903, Richmond, VA 23261.

Mark R. Anderson, Virginia Polytechnic Institute and State University. *In situ* characterization of the structure and charge transfer properties of self-assembled monolayer films. \$31,450 (one year).

Patrick K. Bender, Virginia Polytechnic Institute and State University. Determinants of gamma subunit interactions with calmodulin. \$46,114 (three years).

Carol N. Boozer, Eastern Virginia Medical School. Fuel oxidation and diet-induced obesity. \$41,450 (two years).

Clive Bradbeer, University of Virginia. Studies on intracellular cobalamin transport processes. \$25,663 (one year).

Anthony D. Carter, Virginia Commonwealth University. G-protein dependent regulation of metallothionein gene transcription: implications for inherited diseases of ion transport. \$50,803 (three years).

Fu-lin Chu, Virginia Institute of Marine Science. Immune capacity and susceptibility of eastern oysters, *Crassostrea virginica*, to the pathogen, *Perkinsus marinus*. \$17,163 (one year).

David L. Cull, Eastern Virginia Medical School. Influence of monocyte pre-seeding on the kinetics of endothelial cell seeding of canine prosthetic arterial grafts. \$15,904 (one year)

Harry C. Dorn, Virginia Polytechnic Institute and State University. Nitrogen-15 NMR signal enhancement utilizing flow transfer dynamic nuclear polarization. \$22,378 (one year renewal).

M. Samy El-Shall, Virginia Commonwealth University. Novel studies on nucleation and growth in supersaturated vapors. \$29,991 (one year).

Mark W. Fariss, Virginia Commonwealth University. What makes vitamin E succinate a unique and potent cytoprotective agent? \$38,000 (one year renewal).

Russell G. Foster, University of Virginia. Analysis of the circadian photoreceptors in the mouse. \$29,959 (two years).

Andrew S. Gordon, Old Dominion University Research Foundation. Copper detoxification in *Vibrio alginolyticus*: the effects of Tn5 mutagenesis and physiological aspects of the production of copper binding proteins.

Walter D. Harman, University of Virginia. The promotion of diene reactivity in arenes by pentaammineosmium(II). \$42,300 (one year).

Reid N. Harris, James Madison University. The allometry of defense: a study of caudal autotomy in salamanders. \$13,470 (one year).

Ian Harrison, University of Virginia. Photocatalytic oxidation of adsorbates on Pt(111). \$38,800 (one year).

Barry T. Hinton, University of Virginia. Regulation of epididymal gammaglutamyl transpeptidase. \$15,021 (one year).

Scott W. Kauma, Virginia Commonwealth University. Regulation of placental growth and cytokine production by interleukin-1. \$29,400 (three years).

Rakesh C. Kukreja, Virginia Commonwealth University. Molecular mechanisms of oxygen radicals and neutrophil-mediated myocardial injury. \$13,352 (one year).

Gordon W. Laurie, University of Virginia. Screening and characterization of monoclonal antibodies to novel basement membrane components. \$15,812 (one year).

Deborah Lebman, Virginia Commonwealth University. Regulation of IgA response in murine B lymphocytes. \$32,000 (two years).

Roger M. Loria, Virginia Commonwealth University. Mobilization of cutaneous immunity for systemic protection against infections: mechanisms of action. \$28,680 (two years).

John R. Palisano, Emory and Henry College. The origin and role of confronting cisternae. \$11,923 (one year).

Emilie Rissman, University of Virginia. Endocrine regulation of mammalian reproductive behavior. \$20,345 (one year).

James K. Roche, University of Virginia. Immunology of type I diabetes mellitus: characterization and role of antigens from murine pancreatic beta cell lines. \$54,702 (two years).

Patricia V. Rogers, Virginia Polytechnic Institute and State University. Glycogen metabolism and expression in dictyostelium. \$15,00 (one year).

Ronald J. Roth, George Mason University. A synthesis of anti-malarial drugs related to qinghaosu. \$22,203 (one year).

Gordon S. Rule, University of Virginia. Crystallization of human glutathione transferase. \$22,400 (one year).

G. Alan Schick, Virginia Polytechnic Institute and State University. Molecular interactions in organized monolayer assemblies. \$16,025 (one year).

John D. Schuetz, Virginia Commonwealth University. Regulation of cellular detoxification of P-glycoprotein in rat and human hepatocytes. \$21,220 (one year).

Joseph D. Schwartzman, University of Virginia. Motility and host cell invasion of *Toxoplasma gondii*. \$32,447 (one year).

Frank A. Settle, Jr., Virginia Military Institute. An intelligent system for automated analysis. \$25,733 (three years).

Brian M. Susskind, Virginia Commonwealth University. Regulatory mechanisms in cytolytic T lymphocyte development: role of cGMP. \$34,416 (two years).

Michael P. Timko, University of Virginia. Genetic engineering of *Lathyrus sativus* for cultivars depleted in the neurotoxin  $\beta$ -N-oxalyl-L- $\alpha$ ,  $\beta$ -diaminopropionic acid (Ox-Dapro). \$21,300 (one year).

Donna H. Wang, Eastern Virginia Medical School. Microvascular changes in rat cremaster muscle during chronic decreases in blood flow. \$11,820 (one year renewal).

Russell L. Wolz, Virginia Polytechnic Institute and State University. Design and use of specific peptide substrates and inhibitors of meprin. \$28,270 (two years).

Vicki H. Wysocki, Virginia Commonwealth University. Fundamentals of collisions of polyatomic ions with surfaces. \$11,964 (one year).