

## 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 1996.

The Jeffress Memorial Trust is administered by NationsBank of Virginia, 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, NationsBank, Private Client Group, P. O. Box 26688, Richmond, VA 23261-6688.

Samuel A. Abrash, University of Richmond. Photochemistry of Complexes of Hydrogen Sulfide with Acetylene and Ethylene and Hydrogen Halides with Propyne and Propylene in Argon Matrices. \$10,000 (one year renewal).

David S. Armstrong, The College of William and Mary. Nuclear Weak Interactions and Muon Molecular Physics. \$10,000 (one year renewal).

Margaret C. Biber, Virginia Commonwealth University. Sound Stress Activation of Rat Median Raphe 5-HT Neurons. \$19,993 (one year).

Clive Bradbeer, University of Virginia. Effects of a Vitamin B<sub>2</sub> Deficiency upon Neural Tube Formation and Myelin Synthesis in Developing Vertebrate Embryos. \$15,220 (one year).

Karen J. Brewer and Brenda W. Shirley, Virginia Polytechnic Institute and State University. New Multimetallic Platinum Complexes as Anti-Cancer Agents. \$10,000 (one year renewal).

Gregory A. Buck, Virginia Commonwealth University. Genetic Models to Examine *P. carinii* Group I Introns as Chemotherapeutic Targets. \$19,950 (one year).

Daniel J. Burke, University of Virginia. Molecular Genetics of the Spindle Checkpoint Using Targeted Gene Deletions in Mice. \$20,000 (one year).

Fu-Lin E. Chu, The College of William and Mary-VIMS, School of Marine Science. Role of Lipids and Fatty Acids in Development and Proliferation of the Oyster Protozoan Parasite, *Perkinsus maininus*. \$10,000 (one year renewal).

Gary F. Clark, Eastern Virginia Medical School. Induction of Aberrant Glycan Expression During HIV Infection. \$20,000 (one year).

Robin Lee Davies, Sweet Briar College. Assembly of a Cosmid-Based Physical Map of Chromosome 12q13. \$10,000 (one year renewal).

Michael R. Deschenes, The College of William and Mary. The Effects of Hypokinesia on Neuromuscular Junction Morphology in Adult and Senescent Rats. \$19,893 (one year).

Ke-Wen Dong and Keith Gordon, Eastern Virginia Medical School. Estrogen Receptor Mediated the Antiproliferative Effect of GNRH Agonist in Human Breast Cancer Cells. \$20,000 (one year).

M. Samy El-Shall, Virginia Commonwealth University. Ion Nucleation as Amplifier and Detector in Chemical Analysis. \$19,990 (one year).

Asim Esen, Virginia Polytechnic Institute and State University. Isolation and Characterization of a Beta-Glucosidase Aggregating Factor from Maize. \$20,000 (one year).

Alpha A. Fowler, III, Virginia Commonwealth University. Nitric Oxide Modulation of Human Lung Inflammation. \$19,912 (one year).

Anthony Frankfurter, University of Virginia. Antisense Peptides as Probes for Characterizing Microtubule Protein. \$9,000 (one year renewal).

Cassandra Fraser, University of Virginia. Synthesis of Metal Core Polyoxazolines by Living Polymerization Methodologies. \$20,000 (one year).

David A. Fryburg, University of Virginia. Regulation of Skeletal Muscle Nitric Oxide Synthase. \$19,577 (one year).

Bin Gao, Virginia Commonwealth University. Molecular Mechanisms of Down Regulation of the *cilb* Adrenergic Receptor Gene Expression in Regenerating Liver and Liver Tumor Cells. \$18,600 (one year).

Jill Nelson Granger, Sweet Briar College. Dithiophosphate DNA: Studies on their Purification and Anti-Viral Activity. \$14,117 (one year).

Jacqueline M. Hibbert, Virginia Commonwealth University. A New *in vivo* Method to Determine Hemoglobin Synthesis Rate. \$20,000 (one year).

Stanton F. Hoegerman and William G. Kearns, College of William and Mary. Determining the Biological Relationships between Male Infertility and Chromosome Abnormalities seen at Meiosis and in Sperm Cells using Fluorescent *in situ* Hybridization. \$10,000 (one year renewal).

Peter W. Holloway, University of Virginia. Design of Detergents for Use in Structure Determination of Membrane Proteins. \$19,810 (one year).

Tappey H. Jones, Virginia Military Institute. Formicine Semiochemicals: The Biodiversity of Ant Venoms and Pheromones as Taxonomic Characters. \$15,600 (one year).

William G. Kearns, Eastern Virginia Medical School. Integration of Recombinant AAVCFTR in Diploid Cells: Applications to Human Gene Therapy. \$20,000 (one year).

Floyd Klavetter, The College of William and Mary. Model Studies for the Corrosion-Inhibiting Interactions at Polyaniline-Steel Interfaces. \$18,504 (one year).

Francis J. Liuzzi, Eastern Virginia Medical School. Regulation of Sensory Neuronal NGF Receptors by Estradiol. \$17,827 (one year).

Mary C. Mahony, Eastern Virginia Medical School. Regulation of the 5 $\alpha$ -reductase Enzyme within the (non-human primate) Epididymis. \$10,000 (one year renewal).

Richard T. Marconi, Virginia Commonwealth University. Analysis of the role of circular plasmid encoded gene products on the pathobiology of the Lyme Disease spirochetes. \$10,000 (one year renewal).

M. Alex Meredith, Virginia Commonwealth University. Organization of Multisensory Cortical Circuits. \$19,250 (one year).

Ravinder K. Mittal, University of Virginia. Role of Pharyngeal Receptors in the Induction of Transient Lower Esophageal Sphincter Relaxation. \$19,700 (one year).

Kathleen M. Morgan, The College of William and Mary. Thermochemistry of Epoxides and Allylic Alcohols. \$20,000 (one year).

Benedict C. Nwomeh, Virginia Commonwealth University. Mechanisms of Hyaluronanmediated Regulation of Extracellular Matrix Gene Expression in Dermal Fibroblasts. \$18,700 (one year).

Sergio Oehninger and Ke-Weil Dong, Eastern Virginia Medical School. Expression and Characterization of Human Zona Pellucida Protein 3. \$10,000 (one year renewal).

Christopher J. Osgood and Charles Bunting, Old Dominion University. Biological Effects of Combined Exposure to EMF and Chemical Mutagens. \$20,000 (one year).

Brooks H. Pate, University of Virginia. The Dynamics of Conformer Interconversion Studied Using Infrared-Microwave-Microwave Triple Resonance Spectroscopy. \$20,000 (one year).

Winston Roberts, Old Dominion University. Theoretical Aspects of Baryon Spectroscopy at the Continuous Electron Beam Accelerator Facility. \$10,000 (one year renewal).

John A. Rosecrans, Virginia Commonwealth University. A Mechanism for Neuroendocrine Mediated Immunomodulation Induced by Cocaine. \$19,750 (one year).

Philip D. Rubin, University of Richmond. Radiative Phi Meson Decays at CEBAF. \$20,000 (one year).

Dvorit Samid, University of Virginia. Nuclear Steroid Receptors as Potential Targets of the Antitumor Activity of Aromatic Fatty Acids. \$20,000 (one year).

Diane C. Shakes, The College of William and Mary. Regulation of microtubule function in the *C. elegans* gonad. \$19,860 (one year).

Alisa M. Smith, University of Virginia. Analysis of the antigenic structure of the major house dust mite allergen Der p 2 using site-directed mutagenesis. \$18,044 (one year).

Michael J. Solhaug, Eastern Virginia Medical School. The Mechanisms of Nitric Oxide Regulation in the Developing Kidney. \$19,194. (one year).

A. Kurt Thaw, Sweet Briar College. Interactions of Taste and Satiety Peptides in the Rat. \$15,692 (one year).

Dan Theodorescu, University of Virginia. Induction of T-Cell Immunity to p53: A New Strategy to Inhibit the Development of Metastatic Cell Bladder Cancer. \$20,330 (one year).

Michael Timko and Barbara Mann, University of Virginia. Production of Recombinant Galactose-Inhibitable Adhesin from *Entamoeba histolytica* in Transgenic Plants: Potential for an Edible Oral Vaccine. \$10,000 (one year renewal).

Bruce J. Turner, Virginia Polytechnic Institute and State University. Characterization of a New Family of Retrotransposable Elements in the Genomes of Teleost Fishes. \$17,877 (one year).

Robert M. Umek, University of Virginia. C/EBP Isoforms in Adipocyte Differentiation. \$20,000 (one year).

Leposava Vuskovic, Old Dominion University. Investigation of Proton Transfer Reactions Applicable to Lung Cancer Related Studies of Exhaled Alveolar Air. \$19,819 (one year).

Jeffrey A. Willner, Radford University. Limbic System and Contextual Control of Behavior. \$19,540 (one year).

Raphael J. Witorsch, Virginia Commonwealth University. Modulation of p53, bcl-2, and bax and apoptosis in Nb2 lymphoma cells. \$10,000 (one year).

Mary Kate Worden, University of Virginia. Determination of Quantal Docking and Fusion. \$10,000 (one year renewal).

W. Michael Wormington, University of Virginia. Translational Control Mechanisms During Early Development. \$20,000 (one year).

Allen Yousten, Virginia Polytechnic Institute and State University. Molecular Systematics and Development of Rapid Identification Methods for the Insect Pathogen, *Bacillus Popilliae*. \$10,000 (one year renewal).