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 1995.

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. $15,918 (one year).

David S. Armstrong, College of William and Mary. Nuclear Weak Interactions and Muon Molecular Physics. $17,960 (one year).

Dieter K. Bartschat, Eastern Virginia Medical School. Developmental Aspects of Pb+2 Toxicity. $19,500 (one year).

Deborah C. Bebout, College of William and Mary. Mechanistic Comparison of Evolutionarily Divergent Peptidyl a-hydroxylating Monoxygenases. $10,000 (one year renewal).

David R. Bevan, Virginia Polytechnic Institute and State University. Structural Analysis of NtcA. $5,000 (one year).

Karen J. Brewer and Brenda W. Shirley, Virginia Polytechnic Institute and State University. New Multimetallic Platinum Complexes as Anti-Cancer Agents. $20,000 (one year).

William C. Broaddus, George T. Gilles, and John E. Stewart, Medical College of Virginia Foundation-Virginia Commonwealth University. Improved Medical Imaging for Neurological Procedures. $10,000 (one year renewal).

Michael A. Calter, Virginia Polytechnic Institute and State University. Bifunctional Catalysts for Enolate Generation. $20,000 (one year).

Fu-Lin E. Chu, College of William and Mary-Virginia Institute of Marine Science. Role of Lipids and Fatty Acids in Development and Proliferation of the Oyster Protozoan Parasite, Perkinsus marinus. $17,975 (one year).
Gary F. Clark, Eastern Virginia Medical School. Isolation of Selectin-Ligand Binding Protein from Human Sperm. $21,341 (one year)

Claire Cronmiller, University of Virginia. Molecular and Genetic Characterization of \(1(3)1344\), a Gene Required for Ovarian Follicle Formation in \textit{Drosophila}. $9,775 (one year renewal).

Alan C. Dalkin, University of Virginia. Regulation of Gonadal Activin Receptor Gene Expression. $13,438 (one year renewal).

Robin Lee Davies, Sweet Briar College. Assembly of a Cosmid-Based Physical Map of Chromosome 12q13. $18,568 (one year).

Paul A. Deck, Virginia Polytechnic Institute and State University. Chiral Constrained - Geometry Complexes. $20,000 (one year).

M. Samy El-Shall, Virginia Commonwealth University. Gas Phase Polymerization Catalyzed by Metal Cations. $10,000 (one year renewal).

Felicia A. Etzkorn, University of Virginia. Inhibition of Cyclophilin A and Stabilization of Rnase T1 by a Mimic of cis-Proline. $19,700 (one year).

Reyna Favis, Virginia Polytechnic Institute and State University. Investigating Differentiation in \textit{Dictyostelium discoideum} through the Analysis of Glycogen Phosphorylase 2 Gene Regulation. $20,000 (one year).

John B. Fenn, Virginia Commonwealth University. Quantitative Analysis with Electrospray Mass Spectrometry. $19,149 (one year).

Samuel A. Green, University of Virginia. Rapid Lysosomal Targeting of Amyloid Precursor Protein. $11,000 (one year renewal).

Charles M. Grisham, University of Virginia. Structure and Mechanism of Protein Kinase C Isozymes. $19,000 (one year).

Fred M. Hawkridge, Virginia Commonwealth University. Experimental and Theoretical Examination of the Models for Direct Electron Transfer of Redox Proteins at Solid Electrodes. $20,000 (one year).

Paul D. Heideman, College of William and Mary. Individual Variation in a Neuroendocrine Pathway. $17@753 (one year).

Stanton F. Hoegeerman 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 Florescent \textit{in situ} Hybridization. $20,641 (one year).
Julia W. P. Hsu, University of Virginia. Spatially Resolved Optical and Transport Properties of Compound Semiconductor Thin Films and Devices. $10,000 (one year renewal).


Xi Jiang, Eastern Virginia Medical School. Genetic and Antigenic Characterization of Sapporo-like Calciviruses. $19,066 (one year).

David N. Karowe, Virginia Commonwealth University. The Impact of Increasing Atmospheric Carbon Dioxide Within Two Multiple Trophic Level Systems. $10,495 (one year).

Richard M. Kliman, Radford University. Genealogical analysis of species formation in the *Drosophila simulans* species complex. $15,918 (one year).

Sarah E. Kruse, College of William and Mary. Near-Surface Deformation Associated with the Terrace Zone of the Chesapeake Bay Impact Structure. $15,072 (one year).

Susan E. Lanzendorf, Eastern Virginia Medical School. In Vitro Maturation of Cynomolgus Monkey Oocytes. $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. $11,895 (one year).

G. Paul Matherne, University of Virginia. Overexpression of Myocardial A1 Receptors. $11,988 (one year).

Marcia J. McDuffie, University of Virginia. Genetic Basis of Diabetes in NOD Mice. $20,000 (one year).

Ravinder K. Mittal, University of Virginia. Identification of Enteric Sensory Neurons in the Small and Large Intestine. $19,416 (one year).

Suzanne M. Moenter, University of Virginia. Synchronization of Gonadotrophin Releasing Hormone Neurons. $20,991 (one year).

Sergio Oehninger and Ke-Wen Dong, Eastern Virginia Medical School. Expression and Characterization of Human Zona Pellucida Protein 3. $11,073 (one year renewal).

David P. Pappas, Virginia Commonwealth University. Magnetism of ultra-thin rare earth metal films and multilayers. $9,796 (one year).
Russell L. Prewit, Eastern Virginia Medical School. Pressure-Induced Hypertrophy in Small Artery Explants. $19,949 (one year).

Dorothy Silver Reilly, College of William and Mary. Molecular Biology of the *Xenopus laevis* ORCL-1 Homologue Gene. $18,155 (one year).

Christopher Rembold, University of Virginia. Cyclic AMP Mediated Relaxation of Arterial Smooth Muscle. $20,000 (one year).

Winston Roberts, Old Dominion University. Theoretical Aspects of Baryon Spectroscopy at the Continuous Electron Beam Accelerator Facility. $12,944 (one year).

James K. Roche, University of Virginia. Gut-derived T Lymphocytes for Regulation of the Immune Response. $18,600 (one year).

James R. Roesser, Virginia Commonwealth University. Tissue-Specific Regulation of Alternative RNA Splicing. $10,000 (one year renewal).

Paul K. Ross, Virginia Commonwealth University. Synthesis and Spectroscopic Characterization of Models for Nickel-Containing Metalloenzymes. $10,000 (one year renewal).

Barbara A. Siles, College of William and Mary. The Characterization of Heterogeneous Agarose/Hydroxyethyl Cellulose Matrices for the Separation of DNA Fragments Using Capillary Electrophoresis. $16,405 (one year).

Christopher L. Stevenson, University of Richmond. Remote Monitoring of Phytoplankton using Laser-Excited Synchronous Fluorescence and Factor-based Calibration. $11,000 (one year).

Ann E. Sutherland, University of Virginia. Transcriptional Control of Integrin @1 Subunit Gene Expression in Mouse Embryo Trophoblast Cells. $14,990 (one year).

Michael P. Timko and Barbara J. Mann, University of Virginia. Production of Recombinant Galactose-Inhibitable Adhesin from *Entamoeba histolytica* in Transgenic Plants: Potential for an Edible Oral Vaccine. $20,000 (one year).

Brian M. Tissue, Virginia Polytechnic Institute and State University. Laser Spectroscopy of Probe Ions at Interfaces. $10,018 (one year renewal).

David T. Vandermolen, Virginia Commonwealth University. Interleukin-1 Regulation of Human Endometrial Expression of the Leukemia Inhibitory Factor Family of Implantation Cytokines. $9,800 (one year).

Mary Kate Worden, University of Virginia. Determination of Quantal Docking and Fusion. $16,274 (one year).
Donald R. Young, Virginia Commonwealth University. Interacting Biotic Mechanisms that Control Shrub Establishment on Atlantic Coast Barrier Islands. $14,410 (one year).