

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 1992.

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, Trust Division, 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. \$21,969 (one year renewal).

Abdunnasser F. Barghouty, Roanoke College. Cosmic Ray Primary Nuclei Fragmentation and Showers. \$15,950 (one year).

Stephen J. Beebe, Eastern Virginia Medical School. Molecular Genetic Analysis of Cell Signal Transduction. \$15,000 (one year).

Sylvia R. Betcher, Virginia Commonwealth University. Sodium-dependent Nucleoside Transport: Effects of 2-Azidoadenosine. \$27,313 (one year).

Amy H. Bouton, University of Virginia. Molecular Cloning and Characterization of the pp60^{src}-associated Protein p130. \$20,000 (one year).

Jiande Chen, University of Virginia. Noninvasive Measurement of Migrating Motility Complex of the Human Small Intestine Using Surface Electrodes. \$17,700 (one year).

Gail E. Christie & Catherine H. Roberts, Virginia Commonwealth University. Structural and Functional Characterization of Transcriptional Activator Protein, Ogr. \$9,745 (one year).

Randall D. Davy, Liberty University. The Chemistry of Second (Long) Row Main Group Elements. \$4,633 (one year renewal).

Raymond N. Dominey, University of Richmond. Big Molecules on Small Instruments. \$23,576 (two years).

M. Samy El-Shall, Virginia Commonwealth University. Novel Studies on Nucleation and Growth in Supersaturated Vapors. \$20,717 (one year renewal).

Frederico Gonzalez-Fernandez, University of Virginia. Molecular Analysis of Interphotoreceptor Retinoid-Binding Protein. \$27,356 (one year).

Jack L. Haar, Virginia Commonwealth University. Isolation of thymic factors for bone marrow pre-T lymphocytes. \$17,590 (one year renewal).

Chang S. Hahn, University of Virginia. Class I MHC-mediated modulation of replication of Sindbis virus. \$18,480 (one year).

Daniel J. Haiseneder, University of Virginia. Intracellular Regulation of Prolactin Gene Expression. \$21,100 (one year).

Steven L. Herr, Virginia Commonwealth University. Bolometric Studies of Optical Properties of Thin Film High Temperature Superconductors. \$14,100 (one year).

Barry T. Hinton, University of Virginia. Regulation of Epididymal Gamma-Glutamyl Transpeptidase. \$18,863 (one year renewal).

Walter M. Holmes, Virginia Commonwealth University. tRNA Enzyme Recognition. \$19,000 (one year).

Steven A. Kay, University of Virginia. Novel Circadian Phenotypes in Higher Plants. \$34,000 (one year).

Susan E. Lanzendorf, Eastern Virginia Medical School. In vitro Maturation of Cynomolgus Monkey Oocytes. \$14,761 (one year).

Joyce A. Lloyd, Virginia Commonwealth University. Developmental Regulation of the Human Fetal and Adult B-like Globin Genes. \$25,118 (one year).

Alianna J. Maren, Radford University. A Statistical Thermodynamics Approach to Creating a New Class of Neural Network Computational Systems. \$14,989 (one year).

F. M. Anne McNabb, Virginia Polytechnic Institute and State University. A preliminary study of the ontogeny of thyroid hormone receptor gene expression in embryonic development. \$29,551 (one year).

Louise B. Montgomery, Marymount University. Investigation of the Mechanisms of Virus-Mediated Alterations in Host Cell Gene Expression. \$7,909 (one year renewal).

Mark D. Okusa, University of Virginia. Renal Alpha²-Adrenergic Receptor Subtypes: Molecular Localization and Physiological Significance in Hypertension. \$18,600 (one year).

John R. Palisano, Emory and Henry College. A Correlative Investigation of the Spatial and Temporal Interrelationships between the Nuclear Envelope and Endoplasmic Reticulum in HeLa Cells during Mitosis. \$37,327 (two years).

William A. Petri, Jr., University of Virginia. Characterization of the Immune Response to *Leishmania chagasi* Heat Shock Protein 70 (hsp70) in Patients with Leishmaniasis. \$22,042 (one year).

K. Kevin Pfister, University of Virginia. The Mechanism of Chromosome Movement in Mitosis. \$21,836 (one year renewal).

G. Prem Veer Reddy, University of Virginia. Role of the 68 kDa Calmodulin-binding Protein in the Control of Cellular Proliferation. \$20,500 (one year).

Patricia V. Rogers, Virginia Polytechnic Institute and State University. Glycogen Metabolism and Expression in *Dictyostelium*. \$15,000 (one year renewal).

Gordon S. Rule, University of Virginia. Determination of the Crystal Structure of a Human Glutathione Transferase. \$32,908 (one year renewal).

Arun J. Sanyal, Virginia Commonwealth University. The effects of bile acids on iron absorption. \$15,500 (one year renewal).

Jerzy Sarosiek, University of Virginia. The role of esophageal mucus-lipid-bicarbonate complex in mucosal protection. \$14,499 (one year renewal).

G. Alan Schick, Virginia Polytechnic Institute and State University. Molecular Interactions in Organized Monolayer Assemblies. \$34,802 (two years renewal).

Joseph D. Schwartzman, University of Virginia. Motility and Host Cell Invasion of *Toxoplasma gondii*. \$18,761 (one year renewal).

William G. Shanabruch, University of Richmond. Identification and Characterization of DNA Damage-Inducible Genes in *Saccharomyces cerevisiae*. \$20,164 (one year).

Zhifeng Shao and Jie Yang, University of Virginia. Development of a low temperature atomic force microscope system for structural biology research. \$14,613 (one year).

B. S. Shivaram, University of Virginia. Transport and Magnetic Properties of Heavy Electron Materials at Ultra-low Temperatures. \$19,150 (one year).

James M. Tanko, Virginia Polytechnic Institute and State University. Interplay of Structure and Reactivity in Atom Abstraction Reactions. \$16,628 (one year renewal).

Michael P. Timko, University of Virginia. Immunological and Biochemical Studies of Protein Structure and Catalytic Activity in NADPH: Protochlorophyllide Oxidoreductases. \$21,840 (one year).

Vicki H. Wysocki, Virginia Commonwealth University. Fundamentals of Collisions of Polyatomic Ions with Surfaces. \$12,000 (one year renewal).