

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 1993.

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.

Samuel A. Abrash, University of Richmond, Photochemistry and Dynamics of Complexes of Hydrogen Sulfide with Acetylene and Ethylene in Inert Gas Matrices. \$22,325 (one year).

Suzanne E. Barbour, Virginia Commonwealth University, Preparation and Characterization of Phospholipase A₂-Null Cells. \$26,500 (one year).

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

Timothy J. Bos, Eastern Virginia Medical School, Translational control of *c-jun*. \$16,050 (one year).

Amy H. Bouton, University of Virginia, Molecular Cloning and Characterization of the pp6V^{src}-Associated Protein p130. \$20,555 (one year renewal).

Karen J. Brewer, Virginia Polytechnic Institute and State University, Reduction Coupling of Carbon Dioxide Using Novel Bimetallic Catalysts. \$16,662 (one year).

Daniel J. Burke, University of Virginia, Identifying Novel Factors That Regulate Spindle Function in the Yeast *Saccharomyces cerevisiae*. \$18,550 (one year).

Jiande Chen, University of Virginia, Noninvasive Measurement of Migrating Motility Complex of the Human Small Intestine Using Surface Electrodes. \$19,500 (one year renewal).

Alan T. Dorsey, University of Virginia, Theoretical Studies of Surface Conductivity. \$19,676 (one year).

M. Samy El-Shall, Virginia Commonwealth University, Gas Phase Polymerization Catalyzed by Metal Cations. \$26,780 (one year).

M. G. Finn, University of Virginia, Asymmetric Synthesis of Allenes with Titanium-Substituted Ylides. \$19,650 (one year).

Anthony Frankfurter, University of Virginia, Antisense Peptides as Probes for Characterizing Microtubule Protein. \$22,515 (one year).

Frederico Gonzalez-Fernandez, University of Virginia, Molecular Analysis of Interphotoreceptor Retinoid-Binding Protein. \$29,523 (one year renewal).

Daniel J. Haiseneder, University of Virginia, Intracellular Regulation of Prolactin Gene Expression. \$17,834 (one year).

Shelley Halpain, University of Virginia, Regulation of Dendritic Microtubules in Neurons. \$16,375 (one year).

Ian Harrison, University of Virginia, Surface Dynamics of Single Molecules. \$46,300 (one year).

Steven L. Herr, Virginia Commonwealth University, Bolometric Studies of the Optical Properties of Thin Film High Temperature Superconductors. \$14,350 (one year renewal).

Julia W. P. Hsu, University of Virginia, Spatially Resolved Optical and Transport Properties of Compound Semiconductor Thin Films and Devices. \$24,000 (one year).

Laura C. Huang, University of Virginia, *in vivo* Study of Anabolic Effects of Insulin Mediator. \$20,795 (one year renewal).

Colleen Jackson-Cook, Virginia Commonwealth University, Genetic Factors in Human Sperm Aneuploidy. \$28,002 (one year).

Xi Jiang, Eastern Virginia Medical School, Cultivation of Norwalk Virus in Cell Culture. \$17,500 (one year).

Steve A. Kay, University of Virginia, Novel Circadian Phenotypes in Higher Plants. \$32,000 (one year renewal).

Robert H. Kretsinger, University of Virginia, Determination of the Crystal Structure of Anthranilate Synthase. \$12,000 (one year).

Mark Lee, University of Virginia, Proximity Effect at the Superconductor - Normal Metal Interface with the Perovskite High- T^C Superconductors. \$21,000 (one year).

Barbara J. Mann, University of Virginia, Analysis of the Genes Encoding the Galactose Lectin of *Entamoeba histolytica*. \$25,231 (one year renewal).

Francine Marciano-Cabral, Virginia Commonwealth University, The Chemotactic Response of *Naegleria fowleri* Amoeba. \$13,000 (one year).

Laura K. Moen, Old Dominion University, Cloning and Expression of HTLV-1 Reverse Transcriptase. \$15,000 (one year).

Mitzi Nagarkatti, Virginia Polytechnic Institute and State University, Role of adhesion molecules in experimental immunology. \$14,650 (one year).

Mark D. Okusa, University of Virginia, Renal Alpha₂- Adrenergic Receptor Subtypes: Molecular Localization and Physiological Significance in Hypertension. \$16,500 (One year renewal).

K. Kevin Pfister, University of Virginia, The Mechanism of Chromosome Movement in Mitosis. \$23,147 (one year renewal).

Robert D. Pike, William and Mary, Preparation and Elaboration of Novel (Cyclohexadienyl)manganese Complexes. \$13,500 (one year).

James L. Riopel, University of Virginia, Cellular and Biochemical Basis of Host Resistance during the Penetration Phase of *Striga asiatica*. \$13,000 (one year).

Emilie F. Rissman, University of Virginia, Multiple Forms and Functions of Gonadotropin-Releasing Hormone (GnRH). \$22,210 (one year).

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

Paul K. Ross, Virginia Commonwealth University, Synthesis and Spectroscopic Characterization of Models for Nickel-containing Metalloenzymes. \$14,095 (one year).

Margaret S. Saha, College of William and Mary, Determination and Patterning of the *Xenopus* Forebrain: The Role of *XeNK-2* in Anterior Neural Development. \$17,200 (one year).

Bruce A. Sandow, Eastern Virginia Medical School, Carbohydrate-Mediated Sperm Binding in a Cell Adhesion Model. \$16,352 (one year).

Jerzy Sarosiek and R. W. McCallum, University of Virginia, The Role of Esophageal Mucus-Lipid-Bicarbonate Complex in Mucosal Protection. \$17,113 (one year renewal).

Brenda Winkel Shirley, Virginia Polytechnic Institute and State University, Analysis of protein-protein interactions in the *Arabidopsis* flavonoid enzyme. \$30,746 (one year).

James M. Tanko, Virginia Polytechnic Institute and State University, Interplay of Structure and Reactivity in Atom Abstraction Reactions. \$17,058 (one year renewal).

Michael P. Timko, University of Virginia, Immunological and Biochemical Studies of Protein Structure and Catalytic Activity in NADPH: Protochlorophyllide Oxidoreductases. \$22,300 (one year renewal).

Brian M. Tissue, Virginia Polytechnic Institute and State University, Laser Spectroscopy of Probe Ions at Interfaces. \$27,470 (one year).

Curtis G. Tribble, University of Virginia, Regional Spinal Cord Hypothermia and Adenosine for Prevention of Ischemic Spinal Cord Injury. \$11,645 (one year).

Fang-Sheng Wu, Virginia Commonwealth University, Induction of Gene Expression for Binding Proteins by Calcium Perturbation in Germinating Pollen Cells. \$14,250 (one year).