

## 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 1998.

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.

Lizabeth A. Allison, The College of William and Mary. Nucleocytoplasmic Transport of the Thyroid Hormone Receptor: Alternate Pathways and Determinants of Nuclear Retention. \$19,580. (one year).

Suzanne E. Barbour, Virginia Commonwealth University/Medical College of Virginia. Coordinate Regulation of Cytidylyltransferase and iPLA<sub>2</sub> in CHO Cells. \$20,000. (one year).

Amy H. Bouton, University of Virginia. The Role of p130<sup>cas</sup> in Cellular Growth Regulation. \$10,000. (one year renewal)

Gary L. Bowlin, Virginia Commonwealth University. Preliminary Preparation for a Novel, Vascular Prosthetic-Based Insulin Delivery System. \$19,958. (one year).

Maria Bykhovskaia and John Hackett, University of Virginia. Mechanisms Underlying Time-Course of Transmitter Release During Facilitated Neurosecretion. \$20,000. (one year).

Ann E. Campbell, Eastern Virginia Medical School. Molecular Pathogenesis of Murine Cytomegalovirus. \$10,000. (one year renewal)

W. Bradford Carter, Eastern Virginia Medical School. Role of Vascular Endothelial Cadherin Complexes in Metastasis. \$15,900. (one year).

Richard P. Ciavarra, Eastern Virginia Medical School. Characterization of Primary Th1 and Th2 Cytokine Response by ELISPOT Assay. \$18,124. (one year).

Cynthia Nau Comelissen, Virginia Commonwealth University/Medical College of Virginia. Functional Characterization of Individual Loops of Gonococcal TbpA. \$20,000. (one year).

- Daniel A. Cristol, The College of William and Mary. The Role of the Avian Hippocampus in Migration Behavior. \$9,616. (one year renewal).
- Robin Lee Davies, Sweet Briar College. Investigations of the Cytotoxicity of Novel Diimene Complexes of Platinum (IV) and Palladium (IV). \$16,602. (one year).
- Randall D. Davy, Liberty University. The Reactions of Small Lithium Clusters and Hydrogenated Lithium Clusters with Hydrogen Molecules. \$10,000. (one year renewal).
- Paul Dent, Virginia Commonwealth University/Massey Cancer Center. Mechanisms by Which MAP Kinase p21<sup>cip-1</sup> Regulates Expression in Hepatocytes. \$20,000. (one year).
- Rafael O. de Sa, University of Richmond. A Molecular Phylogeny of the Frog Genus *Leptodactylus*. \$15,950. (one year).
- William A. Ducker, Virginia Polytechnic Institute and State University. Role of Counterion Specificity for Adsorbed-Aggregate Structure. \$20,000. (one year).
- Klaus D. Elgert, Virginia Polytechnic Institute and State University. Tumor Avoidance of Macrophage Tumoricidal Activity: Modulation of NF-Kappa B Activity. \$18,615. (one year).
- M. Samy El-Shall, Virginia Commonwealth University. Ion Nucleation as Amplifier and Detector in Chemical Analysis. \$10,000. (one year renewal).
- Roseanne M. Ford, University of Virginia. Interaction of Motile Bacteria with Surfaces Investigated with TIRAF. \$19,573. (one year).
- Alpha A. Fowler, III, Virginia Commonwealth University/Medical College of Virginia. Nitric Oxide Modulation of Human Lung Inflammation. \$10,000. (one year renewal)
- Marcia B. France, Washington and Lee University. Chiral Schiff Base Complexes as Catalysts for Asymmetric Cyclopropanation. \$19,200. (one year).
- Anthony Frankfurter, University of Virginia. The Role of Transcription Factor NRSF in Neuronal and Neuroendocrine Tumor Differentiation. \$20,000. (one year).
- Cassandra Fraser, University of Virginia. Synthesis of Metal Core Polyoxazolines by Living Polymerization Methodologies. \$10,000. (one year renewal).
- Kimberly E. Forsten, Virginia Polytechnic Institute and State University. The Effect of Shear Stress on Vascular Proteoglycan Distribution in a Coculture System. \$17,290. (one year).

- Shobha Ghosh, Virginia Commonwealth University/Medical College of Virginia. Cholesterol Ester Metabolism in Macrophage Foam Cells. \$20,000. (one year).
- Jill Nelson Granger, Sweet Briar College. Dithiophosphate DNA: Studies on their Purification and Anti-Viral Activity. \$10,000 (one year renewal).
- Robert M. Granger, II, Virginia Military Institute Research Laboratories. Synthesis and Characterization of a Series of platinum(IV)diimine complexes. \$10,000 (one year renewal)
- Andrew C. Hillier, University of Virginia. Design and Interfacial Chemistry of Polymer-Stabilized Bilayer Lipid Membranes. \$10,000. (one year renewal).
- Todd A. Houston, Virginia Commonwealth University. Design of Boron-Based Glycosidase Inhibitors. \$19,700. (one year).
- Scott D. Hyman, Sweet Briar College. A High Resolution Study of Discrete Radio Sources in Nearby Spiral Galaxies. \$10,000. (one year renewal)
- Tappey H. Jones, Virginia Military Institute. Formicine Semiochemicals: The Biodiversity of Ant Venoms and Pheromones as Taxonomic Characters. \$10,000. (one year renewal).
- Mohammed Kalimi, Virginia Commonwealth University/Medical College of Virginia. Protective Effects of Steroids Against Neurotoxin-Induced Hippocampal Cell Death: Cellular and Molecular Mechanisms. \$15,000. (one year).
- Julie Kerry, Eastern Virginia Medical School. Isolation and Characterization of the Human ATF-1 Promoter. \$19,660. (one year).
- Floyd Klavetter, The College of William and Mary. Model Studies for the Corrosion-Inhibiting Interactions at Polyaniline-Steel Interfaces. \$9,925 (one year renewal)
- Michele L. Lamka, University of Virginia. Molecular Genetic Analysis of Morphogenesis in *Drosophila*. \$20,000. (one year).
- Stephen D. Landy, The College of William and Mary. Advanced Measures of Large-Scale Structures Utilizing the Las Campanas Redshift Survey. \$11,500. (one year).
- Daniel A. Lanning, Virginia Commonwealth University/Medical College of Virginia. Differential Homeobox Gene Regulation in Fetal and Adult Skin. \$17,050. (one year).
- Muriel Lederman, Virginia Polytechnic Institute and State University. Using a Mammalian Virus to Create Plants for Site-Specific Transgene Intergration. \$17,873. (one year).

- Rong Li, University of Virginia. Mutational Analysis of the BRCT Motif in BRCA1. \$20,000. (one year).
- Ulrike Lorenz, University of Virginia. The Mechanism(s) and Functional Implications of SHP-1's Action in T cells. \$10,000. (one year renewal).
- Rajesh K. Malik, University of Virginia. Study of Cytoskeletal Changes by Ceramide. \$20,000. (one year).
- J. Patrick Megonigal, George Mason University. The Role of Rhizosphere and Associated Iron-Oxidizing Bacteria in Iron Oxidation and Removal in Wetlands Constructed for the Treatment of Acid Mine Drainage. \$19,900. (one year).
- Steven J. Montante, Virginia Commonwealth University/Medical College of Virginia. Mechanisms of CD44-Mediated Dermal Fibroblast Migration into the Provisional Matrix. \$14,810. (one year).
- Suzanne F. O'Handley, University of Richmond. Discovery and Characterization of New Enzymes from the Nudix Hydrolase Family: Probing Substrate Specificity and Catalytic Activity. \$19,700. (one year).
- Brent E. Owens, The College of William and Mary. Geochronology and Geochemistry of the State Farm Gneiss: Oldest Precambrian Crust in the Goochland Terrane, Piedmont Province, Virginia?. \$12,250. (one year).
- Kodi S. Ravichandran, University of Virginia. Functional Specificity in SHIP T Lymphocyte Signaling. \$10,000. (one year renewal).
- Christopher M. Rembold, University of Virginia. Engineering Apoaequorin to Measure Sarcoplasmic Reticulum [ $Ca^{2+}$ ]. \$20,000. (one year).
- Emilie F. Rissman, University of Virginia. Role of the Alpha Estrogen Receptor in Organization and Activation of Neural Systems. \$10,000 (one year renewal)
- Winston Roberts, Old Dominion University. Theoretical Aspects of Baryon Spectroscopy at the Continuous Electron Beam Accelerator Facility. \$10,000 (one year renewal).
- Raina S. Robeva, Bessie H. Kirkwood, Tim Loboschewski, Sweet Briar College. Electroencephalographic and Psychometric Differences Between Female College Students With and Without Attention Deficit/Hyperactivity Disorder. \$20,000. (one year).
- James R. Roesser, Virginia Commonwealth University/Medical College of Virginia. Regulation of an Exonic Splice Enhancer. \$20,000. (one year).

- Miriam D. Rosenthal, Eastern Virginia Medical School. Effects of Estrogen on Expression of Cytosolic Phospholipase A<sub>2</sub> in Baboon and Human Placenta. \$10,000 (one year renewal)
- Philip D. Rubin, University of Richmond. Rare Radiative Decays of the Phi (1020) Meson. \$19,810. (one year).
- John J. Ryan, Virginia Commonwealth University. The Effect of an Allergic Disease-Linked Mutation in the Human IL-4 Receptor on IL-4 Signal Transduction. \$20,000. (one year).
- Sheila A. Scoville, Eastern Virginia Medical School. Estrogen-IGF Interactions in the Regulation of Primary Sensory Neurosomal Gene Expression. \$19,235. (one year).
- Heidi Scrable, University of Virginia. Molecular Basis of Hippocampal Learning. \$20,000. (one year).
- Diane C. Shakes, The College of William and Mary. Regulation of Microtubule function in the *C. elegans* gonad. \$10,000. (one year renewal).
- Milton M. Sholley, Virginia Commonwealth University/Medical College of Virginia. Do Homeobox Genes Regulate Transcription of Endothelial Adhesion Molecules? \$19,989. (one year).
- Ann M. Stevens, Virginia Polytechnic Institute and State University. Activation of the *Vibriofischeri* Luminescence Operon via Quorum Sensing. \$20,000. (one year).
- Charles I. Sukenik, Old Dominion University. Ultracold Molecular Physics. \$10,000. (one year renewal).
- Douglas R. Taylor, University of Virginia. Molecular Techniques in Conservation: Population Structure of Endangered North American *Hustonia*. \$19,346. (one year).
- Bruce W. Tedeschi, Eastern Virginia Medical School. Novel Immunotherapeutic Strategies, Based on Dendritic Cell Technology, for Brain Cancer. \$20,000. (one year).
- David W. Thompson, The College of William and Mary. Formation of Inorganic Nanophases in Polymeric Matrices: The Synthesis of Highly Reflective and Electrically Conductive Polymeric Films. \$20,000. (one year).
- Bruce J. Turner, Virginia Polytechnic Institute and State University. Immunogenetic Variation in Natural Populations of a Homozygous Clonal Vertebrate. \$20,000. (one year).

- Anne Ungar, University of Virginia. Identification of Genes Involved in Early Neural Development. \$19,920. (one year).
- Kenneth E. Van Ness, Washington and Lee University. Viscous Behavior of Miscible Polymeric Blends. \$20,000. (one year).
- Scott W. Walsh, Virginia Commonwealth University/Medical College of Virginia. Leukocytes and Placental Dysfunction in Preeclampsia. \$20,000. (one year).
- William J. Wasilenko, Eastern Virginia Medical School. SHC Adapter Proteins in Prostate Tumor Cells. \$20,000. (one year).
- Stephen P. Watton, Virginia Commonwealth University. Immobilization of Transition Metal Complexes in Porous Silicate Media. \$20,000. (one year).
- Raphael J. Witorsch, Virginia Commonwealth University/Medical College of Virginia. Modulation of p53, bcl-2, and bax and apoptosis in Nb2 lymphoma cells. \$10,000 (one year renewal)
- H. T. Wright and John Bigbee, Virginia Commonwealth University/Medical College of Virginia. Alzheimer's Amyloid Peptide Interactions with Serpins and Cell Surface Receptors. \$10,000. (one year renewal).
- Leposava Vučković, Old Dominion University. Investigation of Proton Transfer Reactions Applicable to Lung Cancer Related Studies of Exhaled Alveolar Air. \$10,000. (one year renewal).
- Dome R. Yager, Virginia Commonwealth University/Medical College of Virginia. Collagenase Regulation. \$20,000. (one year).
- Guichao Zeng, Virginia Commonwealth University/Medical College of Virginia. Promoter Elements and Transcription Factors of GD3-Synthase Gene. \$9,385 (one year renewal)
- Patty Zwollo, The College of William and Mary. Generation of Monoclonal Antibodies to the Transcription Factor Pax-5d and Pilot Studies on its Presence in Non-Mammalian Organisms. \$19,000. (one year).