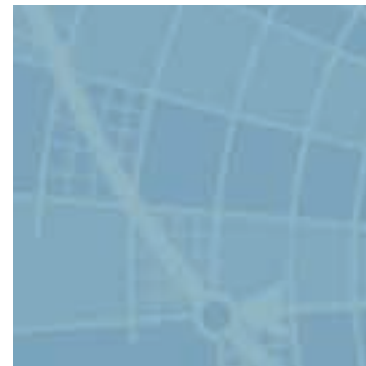


2011 RESEARCH REPORT



THE NATIONAL KIDNEY FOUNDATION



kidney.org

Kidney disease is a major health problem in the United States and around the world. 26 million Americans currently have chronic kidney disease, more than 88,000 Americans are on the waiting list for a lifesaving kidney transplant, and more than 380,000 rely on a dialysis machine to keep them alive.

Because symptoms may not appear until the kidneys are actually failing, millions of people with kidney damage remain unaware and are not taking steps to protect the health of their kidneys.

The National Kidney Foundation (NKF) has been providing help and hope in the fight against kidney disease since 1950. Today, with local offices across the country, NKF is meeting the growing public health challenge of chronic kidney disease with a range of vital programs and services for the public, patients and healthcare professionals.

- Extensive public, patient and professional education
- Free early detection screenings for those at risk for kidney disease
- Patient advocacy through public policy and legislative action
- Promotion of organ donation
- Support of research into the prevention and treatment of kidney disease

The NKF relies on individual donations, corporate sponsorships, foundation and government grants, membership and special events to support its range of programs, services and initiatives. Find out more at kidney.org.





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MESSAGE FROM THE PRESIDENT



The mission of the National Kidney Foundation is to improve the lives of people affected by kidney disease. Our patient-focused research programs accomplish this in two ways.

First, we support studies that contribute knowledge that can be applied toward a greater understanding of diseases, epidemiology and treatment. Complementing what we have accomplished with the KDOQI Guidelines, the research program funds studies that address unmet areas and fill gaps in our knowledge.

Secondly, the program fosters the development of future research scientists. By providing funding at the early stages of training, the NKF is contributing to the birth of a nephrologist's research career and a lifetime of scientific contributions to the knowledge that improves the lives of those we serve.

The National Kidney Foundation is excited about these possibilities, just as we were when we first introduced research proposals supporting our professional councils, and when we recognized the need to expand our support for emerging clinical scientists. The National Kidney Foundation has delivered \$90,000,000 of research funding into the kidney community to date. When you read this report, take stock of the impact of this research and imagine how its future success could help us make amazing advances in kidney healthcare.

As a former NKF grant recipient, I personally thank the NKF for giving me my start. Your ongoing support is so important and, we hope that, once again, you will consider making a contribution to these amazing endeavors.

Thank you,

Lynda A. Szczech

Lynda A. Szczech, MD, MSCE, FASN

President

National Kidney Foundation



THE NKF RESEARCH PROGRAM

During the last 40 years, NKF has invested \$90 million to support over 1,000 researchers investigating the causes and treatments for kidney disease.

NKF and its local offices have been funding the work of promising young scientists in major centers around the US through a variety of career development awards, including Research Fellowships and Young Investigator Grants. This year, scientists backed by NKF are studying a wide and diverse range of topics related to diabetes, high blood pressure, chronic kidney disease, dialysis, and transplantation that will ultimately impact patient care.

NKF research fellows are exploring non-invasive monitoring for earlier detection of possible organ rejection among transplant recipients. Other researchers are studying polycystic disease and identification of protective factors for acute kidney injury.

NKF also expanded its research portfolio with two new Kidney Disease Outcomes Quality Initiative (KDOQI™) grants. NKF is now funding a total of four KDOQI research grants, each supported at the level of \$150,000 annually for three years. The aim of this expansion is to improve clinical practice guidelines, provide more authoritative guidance regarding tests and therapies, and, ultimately, enhance patient outcomes.

In addition, this year NKF is funding its first KDOQI Fellowships. These fellowships are designed to provide training opportunities in epidemiology, biostatistics, translational research, health systems research and/or health outcomes research to prepare young investigators to address the gaps in knowledge identified in the process of developing KDOQI Clinical Practice Guidelines.



DR. MICHELLE DENBURG

As a teenage volunteer at New York Hospital, Michelle Denburg didn't realize her future career path was being charted. Her interest in medicine was sparked as she walked the halls of the pediatric ward, and by the time she finished a second volunteer stint in college, her choice was solidified. As a sophomore, Denburg decided to be premed and major in biology.

"I appreciated the technical experience I had previously acquired, but the year dedicated to clinical research made me realize that the projects I was most invested in were those with a tangible connection to patient care."

As an undergraduate, she spent summers working in labs, conducting basic science research. She studied kidney disease in patients with lupus, and in her senior year of college, she received a fellowship from the National Kidney Foundation of Connecticut, which helped her investigate the kidney's response

CONNECTING THROUGH CLINICAL CARE

to injury. She thoroughly enjoyed the basic science experience, but a Doris Duke Clinical Research Fellowship during medical school steered her in the direction of patient-oriented research.

Today, she is the recipient of a NKF KDOQI Research Grant, through which she's working with her mentor, Dr. Mary Leonard, to understand vitamin D status in children and adults with nephrotic syndrome. Dr. Leonard is a distinguished leader in bone health and nutrition in chronic kidney disease, and Denburg has worked with her on several other projects over the past few years.

"People with nephrotic syndrome have significant proteinuria, which means they leak large quantities of protein in their urine. This includes the proteins that carry vitamin D, and therefore they have low levels of total vitamin D in their blood," says Denburg.

It's widely known that vitamin D is important for bone health, but Denburg says it also acts on the immune and cardiovascular systems. Vitamin D deficiency has been associated with infection, inflammation, diabetes, autoimmune disease and cardiovascular disease.

Denburg says the Institute of Medicine recently called for more studies on the non-skeletal effects of vitamin D, since there isn't enough evidence regarding what defines sufficient vitamin D for other aspects of health.

"The patients with significant proteinuria are unique," says Denburg. "Conventional measures of vitamin D stores in the body may not be appropriate for them because they lose the two proteins to which vitamin D is bound in the blood—albumin and vitamin D-binding protein.

"I'm trying to better understand what the total levels of vitamin D mean. Prior studies have shown that the level is low, but [its] clinical significance is not understood. In terms of treatment, it is really important to know what adequate levels of vitamin D in these patients should be. Patients who do not respond to treatment of their proteinuria and have ongoing losses of vitamin D are at high risk of developing true deficiency and may require different treatment."

When asked what keeps her passionate about her work, Denburg says it's the opportunity to practice evidence-based medicine. She recounts the one patient who presented with severe vitamin D deficiency who sparked her interest in this topic. When she researched

further, she realized that the literature on the subject was outdated and confusing and there was room for further study. "Through patient care, needs are identified and ideas are born. I can then design a study to address those needs and bring my findings back to the patients."

A proud mother of two boys, ages three months and four years old, Denburg says she enjoys reading and the theater, although those passions have been put on hold as she cares for her children and her patients.

Denburg says she's appreciative of the support she's received from NKF all along her career path. "It's come full circle for me. I had the small summer grant as an undergrad, and now I'm a recipient of the larger KDOQI Research Grant. I hope I can continue to use NKF funds to contribute significantly to the field of nephrology."

"Through patient care, needs are identified and ideas are born. I can then design a study to address those needs and bring my findings back to the patients."

NATIONAL KIDNEY FOUNDATION RESEARCH AWARDS

EFFECTIVE JULY 1, 2010

NKF KDOQI™ FELLOWSHIPS

ROWENA BAYUDAN DELOS SANTOS, MD

Oregon Health and Science University
Portland, Oregon

Title of Project: *Cardiac Risk Score in Kidney Transplant Evaluation*

Sponsor: Suzanne G. Watnick, MD

Co-Sponsor: Douglas J. Norman, MD

MICHELLE R. DENBURG, MD

The Children's Hospital of Philadelphia
Philadelphia, Pennsylvania

Title of Project: *Nephrotic-Range Proteinuria: Impact on Vitamin D Status*

Sponsor: Mary B. Leonard, MD

PETER SODERLAND, MD

Boston Medical Center
Boston, Massachusetts

Title of Project: *Atrial Fibrillation in CKD*

Sponsor: James Samuel Kaufman, MD

GAUTHAM VISWANATHAN, MD

Tufts Medical Center
Boston, Massachusetts

Title of Project: *Albuminuria in CKD*

Sponsor: Lesley A. Stevens, MD

Co-Sponsor: Mark J. Sarnak, MD

NKF FELLOWSHIPS

JON DAVID AHLSTROM, PHD

The University of Utah
Salt Lake City, Utah

Title of Project: *Identification of Protective Factors for AKI*

Sponsor: Christof Westenfelder, MD

EMILY GWENDOLYN FARROW, PHD

Indiana University
Indianapolis, Indiana

Title of Project: *Role of FGF23 in CKD-MBD Hyperparathyroidism*

Sponsor: Kenneth E. White, PhD

KIMBERLY C. GILBERT, MD

Vanderbilt University
Nashville, Tennessee

Title of Project: *PPAR Agonist on CYP Monooxygenase Activity in Humans*

Sponsor: Nancy J. Brown, MD

FELIX KNAUF, MD

Yale University School of Medicine
New Haven, Connecticut

Title of Project: *Molecular Physiology of Urinary Oxalate Excretion*

Sponsor: Peter S. Aronson, MD

HUGO RAEDLER, MD

Mount Sinai School of Medicine
New York, New York

Title of Project: *Complement and Alloreactive B Cells*

Sponsor: Peter S. Heeger, MD

NKF KDOQI™ RESEARCH GRANTS

ALLON FRIEDMAN, MD

Indiana University
Indianapolis, Indiana

Title of Project: *N-3 Fatty Acids and Sudden Cardiac Death in Hemodialysis*

PETER S. HEEGER, MD

Mount Sinai School of Medicine
New York, New York

Title of Project: *Vitamin D Repletion and Immunity in Dialysis Patients*

FRANKLIN MCDONALD, MD, FRESenius MEDICAL CARE CLINICAL RESEARCH YOUNG INVESTIGATOR AWARD OF THE NATIONAL KIDNEY FOUNDATION

TIMMY CHANG LEE, MD

University of Cincinnati Medical Center
Cincinnati, Ohio

Title of Project: *Evaluating Processes of Care to Increase AVF Incidence*

Mentor: Prabir Roy-Chaudhury, PhD

AMERICAN SOCIETY OF TRANSPLANT SURGEONS
AND THE NATIONAL KIDNEY FOUNDATION
FOLKERT BELZER, MD, RESEARCH AWARD

MINH-TRI NGUYEN, MD, CM

McGill University
Montreal, Quebec, Canada

Title of Project: *The Role of Th17 and Regulatory T Cells in Mouse Renal Ischemia-Reperfusion Injury as a Model of Delayed Graft Function Post-Kidney Transplantation*

NKF PROFESSIONAL COUNCILS RESEARCH
GRANT RECIPIENTS

**COUNCIL OF NEPHROLOGY SOCIAL
WORKERS GRANT**

BRADLEY MANTON, MSW

Renal Research International
Carrboro, North Carolina

Title of Project: *African American Attitudes Toward Kidney Transplant*

COUNCIL ON RENAL NUTRITION GRANT

MARY SCHANLER, MS, RD

Winthrop University Hospital
Mineola, New York

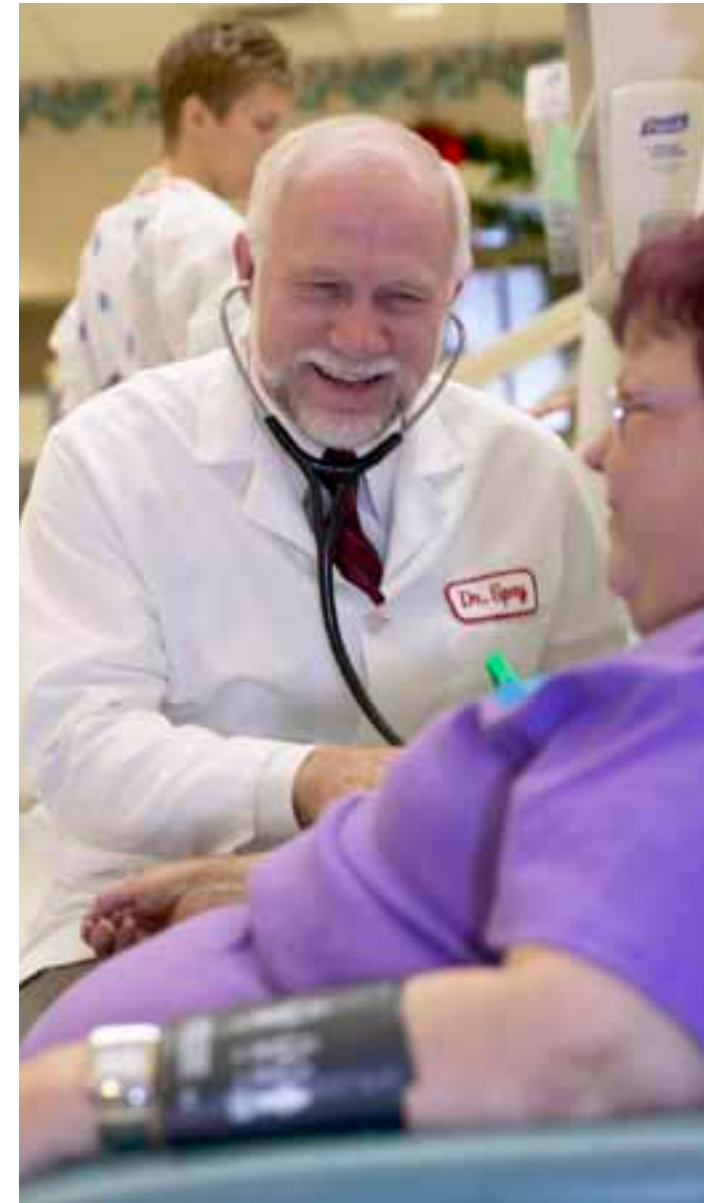
Title of Project: *Ergocalciferol Treatment of Pruritis in Hemodialysis Patients*

**COUNCIL OF NEPHROLOGY NURSES
AND TECHNICIANS GRANT**

HOURLY PUZANTIAN, MS, BSN

University of Pennsylvania
Philadelphia, Pennsylvania

Title of Project: *Age and Cardiovascular Event-Free Survival in CKD*



NATIONAL KIDNEY FOUNDATION RESEARCH AWARDS

EFFECTIVE JULY 1, 2009

NKF FELLOWSHIPS

HISHAM BAZZI, PHD

Sloan-Kettering Institute for Cancer Research
New York, New York

Title of Project: *Centrosomes and Signaling in PKD*

Sponsor: Kathryn Anderson, PhD

PREETI CHANDRA, MD

University of Michigan
Ann Arbor, Michigan

Title of Project: *Heart Rate Variability (HRV) in Chronic Kidney Disease (CKD)*

Sponsor: Rajiv Saran, MD

ABANTI CHAUDHURI, MD

Stanford University School of Medicine
Stanford, California

Title of Project: *Urinary Biomarker Discovery and Validation for Diagnosis and Risk Stratification of Acute Renal Transplant Rejection*

Sponsor: Minnie M. Sarwal, MD, PhD

AMLAN DAS, PHD

University of Pennsylvania
Philadelphia, Pennsylvania

Title of Project: *The Role of the Exocyst in Kidney Epithelial Cell Ciliogenesis*

Sponsor: Wei Guo, PhD

WASSIM EL JOUNI, MD, PHD

Brigham and Women's Hospital
Boston, Massachusetts

Title of Project: *Calcium Signaling and Cell Division in Polycystic Kidney Disease*

Sponsor: Jing Zhou, MD, PhD

KELLY ANNE HYNDMAN, PHD

Medical College of Georgia
Augusta, Georgia

Title of Project: *Nitric Oxide Synthase and Dynamin: A Novel Mechanism in ENaC Trafficking in the Renal Collecting Duct*

Sponsor: Jennifer S. Pollock, PhD

YASUNORI IWATA, PHD

Brigham and Women's Hospital
Boston, Massachusetts

Title of Project: *Colony Stimulating Factor-1: Central to Renal Repair*

Sponsor: Vicki Rubin Kelley, PhD

VIDYA MALINI RAJ KRISHNAMURTHY, MD

University of Utah
Salt Lake City, Utah

Title of Project: *Cholecalciferol Therapy in Calcidiol-Deficient, Non-Diabetic Hemodialysis Patients on Therapeutic Doses of Paricalcitol*

Sponsor: Srinivasan Beddhu, MD

Co-Sponsor: Tom Greene, PhD

PATRICIA OUTEDA-GARCIA, PHD

Johns Hopkins University
Baltimore, Maryland

Title of Project: *Role of Polycystins in the Vascular System*

Sponsor: Terry J. Watnick, MD

ANUSHREE CHAITANYA SHIRALI, MD

Yale University
New Haven, Connecticut

Title of Project: *Nanoparticle Encapsulated Delivery of Immunosuppression During Transplantation*

Sponsor: Daniel R. Goldstein, MD



NKF YOUNG INVESTIGATORS GRANTS

BRISTOL-MYERS SQUIBB YOUNG INVESTIGATOR GRANT OF THE NATIONAL KIDNEY FOUNDATION

GEOFFREY CAMIRAND, MD

University of Pittsburgh
Pittsburgh, Pennsylvania

Title of Project: *In Situ Visualization of Tolerance in Allogeneic Transplantation*

Mentor: Fadi G. Lakkis, MD

SHAUL G. MASSRY, MD, YOUNG INVESTIGATOR GRANT OF THE NATIONAL KIDNEY FOUNDATION

VIPUL C. CHITALIA, MD, PHD

Boston Medical Center
Boston, Massachusetts

Title of Project: *Role of Wnt Signaling in Uremia-Induced Endothelial Dysfunction*

Mentor: Elazer R. Edelman, MD, PhD

PFIZER YOUNG INVESTIGATOR GRANT OF THE NATIONAL KIDNEY FOUNDATION

CHRISTINE B. SETHNA, MD

The Feinstein Institute for Medical Research
Manhasset, New York

Title of Project: *Nocturnal Hypertension in Pediatric Renal Transplantation*

Mentor: Howard Trachtman, MD

VICTOR CHALTIEL YOUNG INVESTIGATOR GRANT OF THE NATIONAL KIDNEY FOUNDATION

SCOTT EDWARD WENDERFER, MD, PHD

The University of Texas Health Science Center Houston
Houston, Texas

Title of Project: *Immune Complex Receptors on Cells of the Glomerulus*

Mentor: Michael C. Braun, MD

FRESENIUS MEDICAL CARE YOUNG INVESTIGATOR GRANT OF THE NATIONAL KIDNEY FOUNDATION

JAMES B. WETMORE, MD

University of Kansas Medical Center Research Institute, Inc.
Kansas City, Kansas

Title of Project: *Warfarin in Dialysis Patients with Chronic Atrial Fibrillation*

Mentor: Edward F. Ellerbeck, MD, MPH

NKF KDOQI RESEARCH GRANTS

JOSEF CORESH, MD, PHD

Johns Hopkins Bloomberg School of Public Health
Baltimore, Maryland

Title of Project: *Complications and Prognosis of CKD in the US Population*

CHESTER H. FOX, MD

The Research Foundation of State University of New York on behalf of University of Buffalo
Buffalo, New York

Title of Project: *Implementing KDOQI Guidelines in Primary Care Practices*

AMERICAN SOCIETY OF TRANSPLANT SURGEONS AND THE NATIONAL KIDNEY FOUNDATION FOLKERT BELZER, MD, RESEARCH AWARD

THOMAS PHAM, MD

The Ohio State University
Columbus, Ohio

Title of Project: *Investigating the Role of CD8+ T Cell and B Cell Interactions in the Regulation of Post-Transplant Alloantibody Production*



DR. TIMMY LEE

Dr. Timmy Lee is working to improve quality of life and care for those on dialysis. The Assistant Professor of Clinical Medicine at the University of Cincinnati was awarded the third National Kidney Foundation Franklin McDonald, MD, Fresenius Medical Care Clinical Research Young Investigator Award. He received a three-year grant to support his work in increasing the use of arteriovenous fistula (AVF).

According to the National Kidney Foundation, an AVF is the preferred method of dialysis access, since its long-term outcomes have been proven better than catheters and grafts. Dialysis patients who use AVFs have fewer infections and hospitalizations and a lower mortality rate.

"...only about 15 percent of those initiating dialysis begin with an AVF and that's the group I will be focusing on."

"The initial goal of NKF's Kidney Disease Outcomes Quality Initiative (KDOQI) Guidelines on vascular access was to have 40 percent of those currently on dialysis using AVF," says Dr. Lee. "With the dissemination of the KDOQI Guidelines and the implementation of the government's Fistula First Initiative, that goal has been exceeded. About 50 percent of those currently on dialysis use AVFs.

EARLY REFERRAL AND DEDICATED FOCUS FOR BETTER OUTCOMES

Both KDOQI and the Fistula First Initiative have now revised their goals to 65 percent for AVF utilization in people currently on hemodialysis. However, only about 15 percent of those initiating dialysis begin with an AVF and that's the group I will be focusing on."

Dr. Lee's research project will investigate ways to increase AVF use in those starting dialysis for the first time. "Barriers to beginning dialysis with AVF include the necessity of early referral from an internist to a nephrologist. If dialysis is needed on an emergency basis, the patient would have to start with a catheter. If advance planning is done, there is time for an AVF to grow. In order to use an AVF, patients must be referred by their nephrologist for vein mapping so the surgeon knows in which vessels they can insert the access. Once surgery is performed, the growth of the access must be monitored closely. So the entire process can take anywhere from three to six months," says Dr. Lee.

Dr. Lee's research is an observational study, to be conducted in a new multidisciplinary Veterans Administration clinic in Cincinnati, that will focus on patients with stage 4 and 5 chronic kidney disease who are not yet on dialysis. Surgeons, dietitians, nurse practitioners and nephrologists will work to improve AVF use and data will be compared to a historical control group. The research project will analyze at what level of kidney function, or GFR, nephrologists begin planning and discussing dialysis modality selection and at what GFR level the vessel mapping and surgery is being performed. The goal is to learn what impact early referral and a dedicated focus on vascular access care in patients with advanced chronic kidney disease have on the rate of incident AVF use.

"If the data we collect from this observational study shows that the clinic is significantly improving AVF use because of earlier vessel mapping and surgery, then we will try to replicate these results within Veterans Administration

systems nationwide through KDOQI and Fistula First. We will recommend the widespread establishment of these multidisciplinary clinics," says Dr. Lee.

"The Franklin McDonald, MD, Fresenius Medical Care Clinical Research Young Investigator Award is designed to stimulate clinical research which could ultimately result in improved care for patients with end-stage renal disease," says Dolph Chianchiano, NKF Senior VP for Health Policy and Research. "We are pleased to fund Dr. Lee's promising research through this award, which was named in memory of Dr. Franklin D. McDonald, a nephrologist who dedicated more than 20 years of volunteer activity to the patient service goals of the NKF."

The Franklin McDonald, MD, Fresenius Medical Care Clinical Research Young Investigator Award was made possible by the generosity of Fresenius Medical Care North America.

"If the data we collect from this observational study shows that the clinic is significantly improving AVF use because of earlier vessel mapping and surgery, then we will try to replicate these results within Veterans Administration systems nationwide through KDOQI and Fistula First," says Dr. Lee.

NATIONAL KIDNEY FOUNDATION

AFFILIATE AND DIVISION RESEARCH AWARDS

2011

MEREDITH ATKINSON, MD

Johns Hopkins Children's Center
Baltimore, Maryland

Title of Project: *Role of Inflammation and Hcpicidin in the Anemia of Chronic Kidney Disease in Children*

NATIONAL KIDNEY FOUNDATION OF MARYLAND

BIDHAN BANDYOPADHYAY, PHD

Georgetown University Medical Center
Washington, DC

Title of Project: *Function of TRPC4 in Kidney Proximal Tubule*

NATIONAL KIDNEY FOUNDATION SERVING THE NATIONAL CAPITAL AREA

MARIE BODELL, MD

University of Rochester
Rochester, New York

Title of Project: *Modeling the Effect of Plasma Exchange on Anti-ABO Antibody Kinetics for Kidney Transplantation*

NATIONAL KIDNEY FOUNDATION SERVING UPSTATE NEW YORK

ROCHELLE CUNNINGHAM, MD

University of Maryland
Baltimore, Maryland

Title of Project: *The Role of NHERF-3 in the Regulation and Cell Surface Expression of the Type IIC Na/Pi Cotransporter*

NATIONAL KIDNEY FOUNDATION OF MARYLAND

MICHELLE ESTRELLA, MD

Johns Hopkins University
Baltimore, Maryland

Title of Project: *Impact of Vitamin D on Kidney Health in HIV-Infected Individuals*

NATIONAL KIDNEY FOUNDATION OF MARYLAND

DEREK FINE, MD

Johns Hopkins University
Baltimore, Maryland

Title of Project: *Cyclohexanone Kinetics in Hemodialysis Patients*

NATIONAL KIDNEY FOUNDATION OF MARYLAND

GAURAV GUPTA, MD

Johns Hopkins University
Baltimore, Maryland

Title of Project: *The Role of Abnormally Glycosylated Tamm-Horsfall Protein in the Development of BK Virus Nephropathy*

NATIONAL KIDNEY FOUNDATION OF MARYLAND

ERUM HARTUNG, MD

Johns Hopkins University
Baltimore, Maryland

Title of Project: *Liver Disease in Autosomal Recessive Polycystic Kidney Disease: Characterization of Key Signalling Pathways*

NATIONAL KIDNEY FOUNDATION OF MARYLAND

JOHN KEVIN HIX, MD

Rochester General Hospital
Rochester, New York

Title of Project: *Can Canivaptan Induce Water Diuresis in Overhydrated Subjects Despite DDAVP?*

NATIONAL KIDNEY FOUNDATION SERVING UPSTATE NEW YORK

VIJAY JAIN, MD

Unity Health
Rochester, New York

Title of Project: *Cost of Dialysis Drugs: A Step Towards the Final Bundled Payment System in 2014*

NATIONAL KIDNEY FOUNDATION SERVING UPSTATE NEW YORK

HONG JI, MD

Georgetown University
Washington, DC

Title of Project: *Role of LH and FSH in Hypertension and Associated Renal Disease*

NATIONAL KIDNEY FOUNDATION SERVING THE NATIONAL CAPITAL AREA

JIANSEN JIANG, MD

UCLA Medical Center
Los Angeles, California

Title of Project: *High Resolution Structural Characterization of NBCel-A by Cryo-EM*

NATIONAL KIDNEY FOUNDATION SERVING SOUTHERN CALIFORNIA AND SOUTHERN NEVADA

HYUNHO KIM, PHD

Johns Hopkins University
Baltimore, Maryland

Title of Project: *Cleaved and Uncleaved Full-Length Polycystin-1 Regulate the 56K Dependent Translation Through the Different Signal Pathways*

NATIONAL KIDNEY FOUNDATION OF MARYLAND

THU LE, MD

University of Virginia
Charlottesville, Virginia

Title of Project: *Effects of GSTM1 Null Polymorphism in Hypertensive Nephrosclerosis*
NATIONAL KIDNEY FOUNDATION SERVING VIRGINIA

LI LI, MD

University of Utah
Salt Lake City, Utah

Title of Project: *Crucial Role of Angiogenesis in Hemodialysis Ateriovenous Graft Stenosis*
NATIONAL KIDNEY FOUNDATION OF UTAH & IDAHO

MIN LI, MD, PHD

Tulane University Health Sciences Center
New Orleans, Louisiana

Title of Project: *Prediction of Kidney Transplant Rejection with Urinary Biomarkers*
NATIONAL KIDNEY FOUNDATION OF LOUISIANA

DONGYAN LIU, MD

Johns Hopkins University
Baltimore, Maryland

Title of Project: *Is Hypertension in ADPKD of Renal Origin?*
NATIONAL KIDNEY FOUNDATION OF MARYLAND

JUN LIU, PHD

Georgetown University
Washington, DC

Title of Project: *Angiotensin II Regulation of Renal Angiotensin Converting Enzyme 2*
NATIONAL KIDNEY FOUNDATION SERVING THE NATIONAL CAPITAL AREA

MANCHANG LIU, MD, PHD

Johns Hopkins University
Baltimore, Maryland

Title of Project: *Chemokine KC on AKI-Induced Lung Apoptosis*
NATIONAL KIDNEY FOUNDATION OF MARYLAND

HAMID RABB, MD

Johns Hopkins University
Baltimore, Maryland

Title of Project: *Effect of Chemokine Receptors on Regulatory T-Cell Trafficking in Repair of Sicehmic Acute Kidney Injury*
NATIONAL KIDNEY FOUNDATION OF MARYLAND

KALANI RAPHAEL, MD

University of Utah
Salt Lake City, Utah

Title of Project: *Effect of Alkali on Renal Fibrosis in Kidney Transplantation*
NATIONAL KIDNEY FOUNDATION OF UTAH & IDAHO

JULIA SCIALLA, MD

Johns Hopkins University
Baltimore, Maryland

Title of Project: *Protein Source and Progression of Chronic Kidney Disease*
NATIONAL KIDNEY FOUNDATION OF MARYLAND

ROGER SCIAMMAS, PHD

University of Chicago
Chicago, Illinois

Title of Project: *Tracking B and Plasma Cell Functions During Transplantation*
NATIONAL KIDNEY FOUNDATION OF ILLINOIS

ANUJA SHAH, MD

Harbor-UCLA Medical Center
Torrance, California

Title of Project: *Metabolic Effects of Different Sources of Dietary Phosphorous*
NATIONAL KIDNEY FOUNDATION SERVING SOUTHERN CALIFORNIA AND SOUTHERN NEVADA

NAWAR SHARA, PHD

Medstar Research Institute
Hyattsville, Maryland

Title of Project: *Oxidative Stress and Kidney Disease in a Diabetes-Prone Population*
NATIONAL KIDNEY FOUNDATION SERVING THE NATIONAL CAPITAL AREA

FUAD SHIHAB, MD

University of Utah
Salt Lake City, Utah

Title of Project: *Development of Biomarkers for Renal Allograft Fibrosis*
NATIONAL KIDNEY FOUNDATION OF UTAH & IDAHO

MAGDALENA SIKORA, MD

University of Utah
Salt Lake City, Utah

Title of Project: *Effects of Oral Calcium Carbonate Therapy on Serum Fibroblast Growth Factor 23 and Markers of Inflammation and Oxidative Stress Markers in CKD Patients with High Phosphaturia: A Cross-Over Study*
NATIONAL KIDNEY FOUNDATION OF UTAH & IDAHO

DAVID SPECTOR, MD

Johns Hopkins University
Baltimore, Maryland

Title of Project: *Mechanisms and Regulation of Urea Transport Across Mammalian Urinary Bladder Epithelium*
NATIONAL KIDNEY FOUNDATION OF MARYLAND

CHRISTOF WESTENFELDER, MD

University of Utah
Salt Lake City, Utah

Title of Project: *In Vitro Studies on the Mechanisms that Mediate the Homing of Infused Mesenchymal Stem Cells to the Acutely Injured Kidney*
NATIONAL KIDNEY FOUNDATION OF UTAH & IDAHO

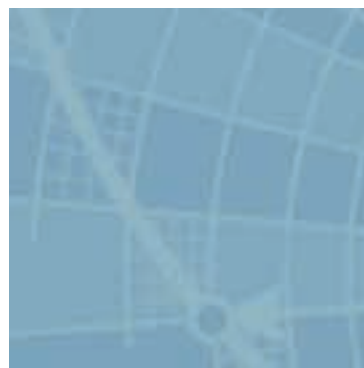
KARL WOMER, MD

Johns Hopkins University
Baltimore, Maryland

Title of Project: *Suppression of Donor-Specific Antibody by Kidney Stem Cells*
NATIONAL KIDNEY FOUNDATION OF MARYLAND

SUPPORT NKF RESEARCH AND FIGHT KIDNEY DISEASE

The National Kidney Foundation relies on individual and corporate contributions and grants to fund its Research Program. Donations can support the full range of our research initiatives and be made as honor gifts or through the planned giving program. Contribute at www.kidney.org/Donate. To learn more about the variety of opportunities available to support NKF's Research Program or to earmark your contribution for specific areas of investigation, please contact Stephanie Cogen at **212.889.2210 ext. 166** or at stephaniec@kidney.org



You Can Help By

Participating in a local Kidney Walk
kidneywalk.org

Playing in a local NKF Cadillac Golf Classic
nkfcadillacgolfclassic.org

Donating a vehicle to Kidney Cars
kidneycars.org

Making a contribution at
kidney.org/donate

