

A collaboration between Northwest Kidney Centers and UW Medicine



LEFT: Ernie Ayers, Kidney Research Institute research manager RIGHT: Laboratory manager John Ruzinski and Dr. Catherine Yeung in the Kidney Research Institute laboratory.

Growing to fulfill our mission and vision

A message from the director

DR. JONATHAN HIMMELFARB

Our vision at the Kidney Research Institute is for **every eligible patient with kidney disease to be informed about, participate in and benefit from our research**. Every day we work to realize our mission to conduct research that impacts lives. Because of this work, we have already become an integral part of the kidney community throughout Washington state and beyond.

The last year has been a time of rapid development and growth at the Kidney Research Institute. We benefited from our first significant independent philanthropic donations, and there are **now more than 1,100 people with kidney disease enrolled in our studies and clinical trials**. We have also developed an active patient registry, biorepository and a state-of-the-art core research laboratory. This laboratory was featured in a video that made its debut at the 2011 Annual Meeting of the American Society of Nephrology.

In addition, the KRI has played a pivotal role in the accomplishments of University of Washington Nephrology – a division now ranked 11th in the nation, according to US News & World Report. Many more medical students and young physicians are being attracted to nephrology, and **we are quickly developing a pipeline of talented young investigators** for kidney disease research.

Our third annual Scientific Advisory Committee meeting took place Oct. 17 and 18. For two days, committee members listened to presentations about research program accomplishments and challenges. These world-class leaders in biomedical research and kidney disease were excited by our developing program, and provided useful insights to help guide future efforts. **They were impressed with the KRI's considerable growth in the last year**, but even more so with the quality, depth and breadth of research ideas being conducted.

Goals and plans for 2012 include the continued building and refinement of our infrastructure, increasing study enrollment to 2,000 people, and expanding our funding for research. The Kidney Research Institute will continue to integrate clinical infrastructure, outstanding investigators and high-impact ideas in order to improve the lives of people with kidney disease.

We strive to make a difference, and we thank you for your continued support.

ON THE HORIZON

VOLUME 2, NUMBER 2 • FALL 2011

TRANSFORMING LIVES THROUGH
INNOVATION AND DISCOVERY

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New KRI study points the way to preventing kidney damage in people with type 1 diabetes

.....study offers further proof that keeping blood sugar levels as steady as possible will keep kidneys as healthy as possible.
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In November, the Kidney Research Institute's Dr. Ian de Boer published a study in the New England Journal of Medicine that found that people with type 1 diabetes who maintain better control over their blood sugar (blood glucose) levels can help protect their kidneys from long-term damage. The groundbreaking study offers further proof that keeping blood sugar levels as steady as possible will keep kidneys as healthy as possible.

"It's the first study to demonstrate that impaired glomerular filtration rate (GFR) can be prevented," said Dr. de Boer, KRI investigator and assistant professor of medicine in the Division of Nephrology at the University of Washington. Impaired GFR is a kidney complication that can lead to end-stage renal disease, the most serious kidney complication associated with diabetes. "The study also implicates high glucose levels as a cause of impaired GFR and demonstrates that controlling high glucose levels can have long-term benefit for the kidneys," Dr. de Boer said.

In the study, glucose was controlled using three or more insulin injections per day or using an insulin pump. "It is hard to do and there are risks, including hypoglycemia," Dr. de Boer said. "And those obstacles need to be addressed on an individual level."

The key now is to make sure that diabetes patients and clinicians heed the study's findings and do what is necessary to keep blood glucose levels in check.



Dr. Bernadette Thomas

Fighting kidney disease in Cambodia

Dr. Bernadette Thomas is a University of Washington nephrology fellow working with the Kidney Research Institute. Earlier this year, she was part of a UW delegation that met with local care givers in Phnom Penh, Cambodia to identify ways to improve access to kidney care for Cambodians. Currently, just one dialysis unit in all of Cambodia provides treatment for patients with kidney failure.

One solution the delegation evaluated would be to build a peritoneal dialysis (PD) program. This therapy method uses the membrane that lines a patient's abdomen to clean the blood in place of

failed kidneys. It allows patients to treat themselves at home after they have been trained by a nurse or doctor, reducing the need and expense for travel to receive treatment.

In addition to her research, Dr. Thomas is connecting resources from the International Society of Nephrology and the International Society of Peritoneal Dialysis to support the development of this program. If successful, it could provide dialysis to a much larger portion of the Cambodian population at lower cost than in-center hemodialysis, potentially saving thousands of lives.

Kidney Research Institute investigators twice honored with prestigious Fialkow Award

Though the Kidney Research Institute has been open just over three years, its researchers have twice been recognized with a top UW Medicine honor, the Fialkow Award. Dr. Ian de Boer was recently named a 2011 winner, following in the footsteps of Dr. Bryan Kestenbaum, who won in 2009.



Kidney Research Institute investigators Dr. Ian de Boer (top) and Dr. Bryan Kestenbaum

"This award singles out outstanding faculty members from the whole University of Washington Department of Medicine," said Dr. Jonathan Himmelfarb, director of the Kidney Research Institute. "We are very proud to have two of our investigators honored in such a short time span."

The Fialkow Award is in memory of the late University of Washington dean and chair of medicine, Dr. Philip Fialkow, and his wife, the late Helen Fialkow. It recognizes the outstanding achievements of junior medicine faculty in research, teaching, clinical work and academic leadership.

Dr. de Boer studies groups of diabetic individuals to discover new risk factors for long-term kidney complications of diabetes.

He also investigates how disturbances in vitamin D metabolism affect cardiovascular disease risk among people who have kidney impairment.

Dr. Kestenbaum's research goals are to understand the causes of mineral metabolism disturbances in people with kidney disease. His research includes evaluating the role of genes, diet and medications. He also hopes to describe clear effects of these disturbances on blood vessel calcification, aortic valve disease, hypertrophy of the heart, hypertension and bone fractures.

He studies groups of people with and without kidney disease to gain full insight into the causes and consequences of altered mineral metabolism.

SCIENTIFIC ADVISORY COMMITTEE

The Scientific Advisory Committee consists of internationally recognized scientists who help us evaluate our work to ensure we produce the highest quality of research.

DR. JOSEPH BONVENTRE, director, renal division and Robert H. Ebert professor of medicine and health sciences and technology at Brigham and Women's Hospital, Harvard Medical School

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DR. ERIC G. NEILSON, Lewis Landsberg dean and vice president for medical affairs at Northwestern University Feinberg School of Medicine; editor-in-chief for the Journal of American Society of Nephrology

DR. GERALD NEPOM (CHAIR), director of Benaroya Research Institute and the Immune Tolerance Network; affiliate professor of immunology and medicine at University of Washington

DR. RUSSELL TRACY, professor of pathology and biochemistry, director of the Laboratory for Clinical Biochemistry Research at University of Vermont College of Medicine

*2011 ad-hoc members

KIDNEY RESEARCH INSTITUTE COUNCIL

The Council provides advice and counsel to ensure the work we do stays relevant to the community of people with kidney disease and their families.

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Kidney Research Institute's recent publications of note

MINERAL METABOLISM DISORDERS IN CHRONIC KIDNEY DISEASE

Journal of the American Medical Association, March 2011
Dr. Bryan Kestenbaum

RACIAL ETHNIC DIFFERENCES IN RATES AND DETERMINANTS OF DECEASED DONOR KIDNEY TRANSPLANTATION

Journal of the American Society of Nephrology, April 2011
Dr. Yoshio Hall, et al.

TRENDS IN TIMING OF INITIATION OF CHRONIC DIALYSIS IN THE UNITED STATES

Archives of Internal Medicine, October 2011
Dr. Ann M. O'Hare, et al.

OPTIMIZING PATIENT SAFETY DURING HEMODIALYSIS

Journal of the American Medical Association, October 2011
Dr. Jonathan Himmelfarb

REGIONAL DIFFERENCES IN DIALYSIS CARE AND MORTALITY AMONG AMERICAN INDIANS AND ALASKA NATIVES

Journal of the American Society of Nephrology, October 2011
Dr. Yoshio Hall,
Dr. Jonathan Himmelfarb, et al.

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Supporting the Kidney Research Institute means being on the offensive against chronic kidney disease

A patient's perspective

BILL PECKHAM

Sometimes I imagine chronic kidney disease (CKD) as a thing, as a ghoul, as a parasite. I imagine this CKD-thing that has taken friends of mine and continues to torment the rest of us as a shadowy presence. This fiend seems to be everywhere at once, a tentacled Methuselah of grief, a phantasm ready to envelop its victim.

Supporting research is a way to fight this monster that besets so many. Each advance that diminishes the burden of CKD for one, diminishes the monster for everyone. Research will make my fight with the CKD monster easier. Research will make everyone's fight easier.

I read accounts of people's confrontation with CKD. Each person comes to the fight with their own support, resources and options, some more ready than others. I support research because I want to make their fight easier. Research is a way to make the fight easier for us all.

Someday the Kidney Research Institute will improve the care I experience, but that's not what I'm thinking about when I support it through financial donations and volunteering. I support its research because it is a way to get on the offense. Supporting the Kidney Research Institute brings the fight to the monster.

ABOUT THE AUTHOR: Bill Peckham of Seattle, shown here in Cambodia, is an intrepid traveler and author of the blog, *Dialysis from the Sharp End of the Needle*. He is an active volunteer for Northwest Kidney Centers and the Kidney Research Institute. He treats his Stage 5 chronic kidney disease with home hemodialysis.

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easier for us all.