

A collaboration between Northwest Kidney Centers and UW Medicine



LAB MANAGER JOHN RUZINSKI, center, gives visitors a tour of the laboratory during the Oct. 20 open house.

A busy time developing research objectives and holding events

A message from the director

DR. JONATHAN HIMMELFARB



The last few months have been full of activity at the Kidney Research Institute. In early October, we welcomed our Scientific Advisory Committee for its second annual meeting.

Committee members were pleased with how our programs have become substantially broader and more robust compared to just one year ago. The committee also noted the large number of new grants — including national awards to several young investigators — and the clarity of leadership goals, illustrated by the “Top 10 for 2011” list of our research objectives. A summary of the meeting is available at www.kri.washington.edu.

We also held the Institute’s first open house and first lunchtime seminar. On Oct. 20, we opened our doors to nearly 200 members of the community: people with kidney disease and their families and care givers, those who support our mission, members of the medical community, and anyone with the desire to learn more about kidney disease research. On Feb. 11, we held our first lunchtime seminar, where I spoke about the connection between the heart and the kidneys. Turn the page to see photos of the events.

Thank you for your support of the Kidney Research Institute.

ON THE HORIZON

VOLUME 2, NUMBER 1 • SPRING 2011

**TRANSFORMING LIVES THROUGH
INNOVATION AND DISCOVERY**

KIDNEY RESEARCH INSTITUTE

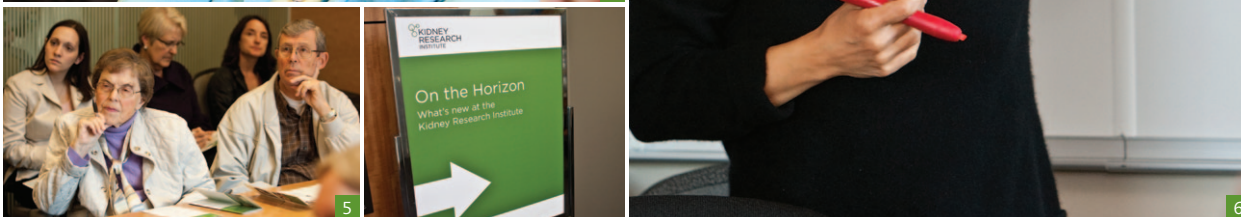
Mailing Address:
Box 359606
325 9th Avenue
Seattle, WA 98104

206-616-8574
info@kri.washington.edu

www.kri.washington.edu

On the Horizon

Open House Wednesday, October 20, 2010



Protect your kidneys, save your heart

Presentation by Dr. Jonathan Himmelfarb Friday, February 11, 2011



1 Dr. Catherine Yeung, in the lab, explains the scientific principles of mass spectrometry and potential uses in kidney research.

2 Dr. Stuart Shankland, professor and head of the Division of Nephrology at the University of Washington, Joyce Jackson, president and CEO of Northwest Kidney Centers, and Dr. Jonathan Himmelfarb, Kidney Research Institute director – looking over the inaugural issue of the newsletter.

3 Bill Peckham, Northwest Kidney Centers Foundation Board member, and John Ruzinski, Kidney Research Institute laboratory manager.

4 Louise Legaz listens to Dr. Jonathan Himmelfarb's talk on the efforts to optimize outcomes for dialysis patients.

5 Community members listen as Dr. Bryan Kestenbaum talks about the role of genetics in kidney disease.

6 Dr. Maryam Afkarian discusses new approaches to diagnosing diabetic kidney disease.

7 Dr. Catherine Yeung, research scientist at the Kidney Research Institute, talks with Dr. John Stivelman, senior medical director at Northwest Kidney Centers.

8 Calvin Sturdivant, Glenda Roberts, Larry Richards and Janice McGee listen to Dr. Jonathan Himmelfarb talk about the link between the kidneys and the heart.

9 Dr. Jonathan Himmelfarb talks about clinical studies of patients with kidney and cardiovascular diseases.

Focus on clinical studies

Our goal is to improve the care that kidney disease patients receive in their everyday lives. Get to know two of our young investigators who are working on research to do just that. They have both won career development awards from the National Institutes of Health.

Chronic kidney disease in disadvantaged populations

DR. YOSHIO N. HALL



Members of racial-ethnic minority groups and low-income populations bear a disproportionate burden of chronic kidney disease and particularly end-stage renal disease.

We hypothesize that public health systems do not consistently identify or provide recommended care to chronic kidney disease patients who are at highest risk for progressive disease. We are examining data from Harborview Medical Center in Seattle and The Community Health Network in northern California.

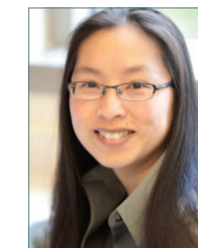
FOCUS: We are focusing on the prevalence of reduced kidney function among outpatient users of the health care safety net program and are studying patterns in how those patients used health services.

ANTICIPATED IMPACT: We anticipate that our research will form the basis for patient-centered interventions to improve the delivery of chronic kidney disease care of diverse populations.

ABOUT THE INVESTIGATOR: After graduating from Yale, Yoshio received his medical degree from Baylor College of Medicine and completed his internal medicine residency and nephrology fellowship training at the University of California, San Francisco. He hopes, through research, to improve the care of people with chronic kidney disease, particularly in medically underserved communities.

Pathophysiology of altered hepatic drug disposition in patients with kidney disease

DR. CATHERINE YEUNG



FOCUS: The effects of kidney disease are not limited to the kidneys. All organs can be affected, particularly the liver. This may be one of the reasons that

drug levels in patients with kidney disease are unpredictable. Our study is using laboratory-based cellular biology techniques and pharmacogenetic analysis to understand why drug disposition in the liver is altered by kidney disease.

ANTICIPATED IMPACT: We aim to understand the mechanisms of altered drug disposition in patients with kidney disease and help clinicians select the best medication and dosing regimen for each patient based on kidney function and genetic characteristics.

ABOUT THE INVESTIGATOR: Cathy received her pharmacy training at the University of Michigan and her Ph.D. in medicinal chemistry at the University of Washington. She is committed to optimizing medication selection and dosing based on genetics and disease progression, and is inspired by the spirit and resilience of kidney disease patients and their families.

SCIENTIFIC ADVISORY COMMITTEE

The Kidney Research Institute has established a Scientific Advisory Committee, consisting of internationally recognized scientists, to help ensure that we bring the highest possible quality of science to bear on solving the problems caused by kidney disease.

DR. JOSEPH BONVENTRE, chief of the division of nephrology at Brigham and Womens' Hospital, Samuel A. Levine Professor of Medicine, Harvard University

DR. NANCY J. BROWN, Robert H. Williams Professor of Medicine; chair, department of medicine, Vanderbilt University Medical Center

DR. THOMAS COFFMAN, chief of nephrology, professor of medicine at Duke University Medical Center and 2008–2009 president of the American Society of Nephrology

DR. ERIC G. NEILSON, Hugh J. Morgan Professor of Medicine & Cell Biology, Vanderbilt University Medical Center; editor-in-chief, *Journal of the American Society of Nephrology*

DR. GERALD NEPOM (CHAIR), director of the Benaroya Research Institute at Virginia Mason Medical Center

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

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.

DR. SUHAIL AHMAD, Northwest Kidney Centers chief medical officer, University of Washington professor of medicine

JACK COLE, former Northwest Kidney Centers trustee

JOSEPH ESCHBACH, Northwest Kidney Centers trustee

JOYCE F. JACKSON, president and CEO of Northwest Kidney Centers

BILL PECKHAM, past Northwest Kidney Centers Board chair and Northwest Kidney Centers Foundation Board member

JEAN ROLFE (CHAIR), Northwest Kidney Centers emeritus trustee

DR. JOHN STIVELMAN, Northwest Kidney Centers emeritus chief medical officer and senior medical director, University of Washington professor of medicine

DAVID WILDE, Northwest Kidney Centers Board vice chair

RETURN SERVICE REQUESTED

U.S. Rep. Jay Inslee visited the Kidney Research Institute on Feb. 22 to see how federal funding makes a major difference in advancing our field. He toured the laboratory and espoused great support for our work.



Dr. Jonathan Himmelfarb, director of the Kidney Research Institute, Rep. Jay Inslee, and Joyce Jackson, CEO of Northwest Kidney Centers.

Vitamin D: why the sunshine vitamin is so important for people with kidney disease

DR. CORTNEY BOSWORTH

Back in the 1600s, children in northern European cities commonly developed severe bone malformations, called rickets. In the 1800s, doctors discovered that cod liver oil cured the disease — and that the illness was associated with a lack of sun exposure — but it wasn't clear why. Finally, in the 1930s, research revealed that the crucial substance in cod liver oil was vitamin D, which is also generated by exposing the skin to ultraviolet light. Rickets is now uncommon in the Western world due to fortification of milk with vitamin D.

Recently, researchers have found that vitamin D may have other beneficial effects. There is evidence that vitamin D is important for both muscle and heart health. Additionally, vitamin D may be important in decreasing the risk of colorectal cancer, controlling inflammation, and slowing the progression of kidney disease.

In kidney disease, the body's ability to use vitamin D is altered because the kidneys

are responsible for activating vitamin D. Vitamin D supplementation may prevent progression of kidney disease or its complications, such as cardiovascular disease. However, these benefits have not been proven in well-designed clinical studies.

In order to better understand the effect of vitamin D in people with and without kidney disease, we have several studies under way at the Kidney Research Institute. In three epidemiologic studies, we are investigating new markers of vitamin D in order to find better ways of tracking vitamin D activity in the body. In three interventional studies, we are investigating the effects of vitamin D medications on patient health.

Vitamin D appears to have wide-ranging effects beyond bone health, especially among people with kidney disease. We hope that by better understanding these effects, we can improve the lives of people with kidney disease.



ABOUT THE AUTHOR Cortney graduated from Middlebury College in 1998 with a bachelor's degree in molecular biology and biochemistry and a minor in economics. He went to medical school at the University of Vermont, where his interest in nephrology began. As a nephrology fellow, his goal is to better understand how vitamin D metabolism changes in kidney disease and how vitamin D may be used as a treatment in people with kidney disease.