

Is There an Epidemic of Chronic Kidney Disease in the US? –

**Causes, Cardiovascular
Consequences, and
Management**

**SATURDAY
JANUARY 19, 2008**

**Los Angeles Marriott Hotel Downtown
333 South Figueroa Street
Los Angeles, California**

presented by

**Office of Continuing Medical Education,
Division of Nephrology, and
University Kidney Disease Research Associates
Keck School of Medicine
University of Southern California**

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COURSE DESCRIPTION

According to the National Kidney Foundation (2007), twenty million Americans suffer from Chronic Kidney Disease (CKD), an estimated additional twenty million are at risk, and End-stage Renal Disease (ESRD) rates are rising. In addition, Kidney failure currently accounts for 6% of Medicare payments and lost income of 2-4 billion dollars annually.

During the last ten years, the prevalence of obesity in industrialized countries has increased dramatically. Currently, approximately 25% of adults in the US are obese. These individuals can manifest a clustering of metabolic and hormonal abnormalities, including insulin resistance, hyperinsulinemia, and hypertriglyceridemia, that increase the risk of cardiovascular disease, kidney disease, and diabetes which represents the most common cause of CKD and ESRD in this country. Chronic Kidney Disease is associated with decreased quality of life, increased health care costs, and premature death. Early detection, through regular testing of patients at risk, can lead to timely and appropriate treatment that will help curb the progression of the disease.

This seminar is designed for Internists, Family Medicine physicians, Nephrologists, and Cardiologists, and other healthcare professionals involved in the care of patients with CKD. The goal is to present emerging evidence that will expand physicians' existing knowledge and skills in prevention, diagnosis, and treatment of CKD, leading to changes in practice that will help limit the progression of disease. Understanding the mechanisms responsible for progression of kidney disease will also lead to more effective and targeted treatment and better patient outcomes.

OBJECTIVES

At the completion of the program, participants should be able to:

- discuss the epidemiology of CKD – pathophysiology, incidence/prevalence, and mortality/morbidity in the US and recognize who is at risk,
- apply strategies to reduce the progression of CKD, including regular testing of patients at risk,
- describe the association between CKD and cardiovascular disease,
- integrate evidence presented to improve treatment, and
- discuss the pathogenic mechanisms responsible for progression.

The information presented is intended to close the gap between actual and optimal patient care based on the best existing evidence, guidelines, and practice assessment.

PROGRAM

- 7:30 **Registration and Continental Breakfast**
- 8:00 **Introduction and Welcome**
Vito M. Campese, M.D., Symposium Director

SESSION 1: EPIDEMIOLOGY OF CKD

Moderators: Richard J. Glassock, M.D.
and Mirosław Smogorzewski

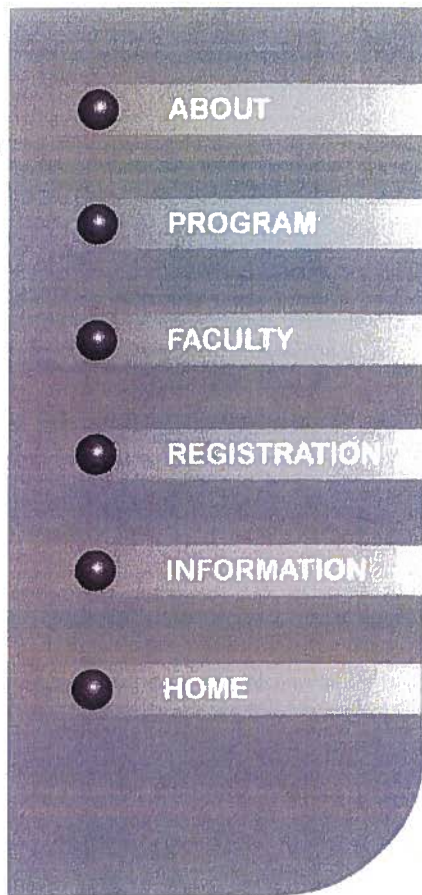
- 8:10 **Is There an Epidemic of CKD in the US?**
Are We Assessing Kidney Function Adequately?
Alan Yu, M.D.
- 8:40 **Diabetic Nephropathy: Bench to Bed**
Sharon Adler, M.D.
- 9:10 **Ischemic Nephropathy as a Cause of End Stage**
Renal Disease (ESRD)
Stephen C. Textor, M.D.
- 9:40 **Chronic Kidney Disease and Cardiovascular Disease:**
A Bi-Directional Relationship?
Daniel E. Weiner, M.D.
- 10:10 **Questions and Answers**
- 10:30 **Break**

SESSION II: ADVANCES IN THE PATHOPHYSIOLOGY OF CKD

Moderators: Sharon Adler, M.D. and Alan Yu, M.D.

- 11:00 **Prorenin and its Receptors: Are They Really Relevant**
to Kidney and Cardiovascular Disease?
Genevieve Nguyen, M.D.
- 11:30 **Interplay of Oxidative Stress, Inflammation and the**
Renin Angiotensin System (RAS) in Progression of
Kidney Disease
Nick D. Vaziri, M.D.
- 12:00 **Dyslipidemia and its Impact on CKD Progression**
Vito M. Campese, M.D.
- 12:30 **Current and Future Immune Monitoring Tools for**
Improving Diagnosis of Transplant Rejection and
Other Complications
Elaine Reed, Ph.D.
- 1:00 **Questions and Answers**

TECHNOLOGICAL ADVANCES IN KIDNEY DISEASE RESEARCH



Organizing Committee:

Vito M. Campese, M.D., Chief, Division of Nephrology

Alicia McDonough Ph.D., Director, Systems Biology and Disease

Donald J. Marsh, M.D.

Manfred Mosk, Ph.D.

Janos Peti-Peterdi, M.D., Ph.D.

Alan S. L. Yu, M.D.



This symposium is organized by the [Division of Nephrology](#) and the [Graduate Program in Systems Biology and Disease](#) at the Keck School of Medicine of the University of Southern California.



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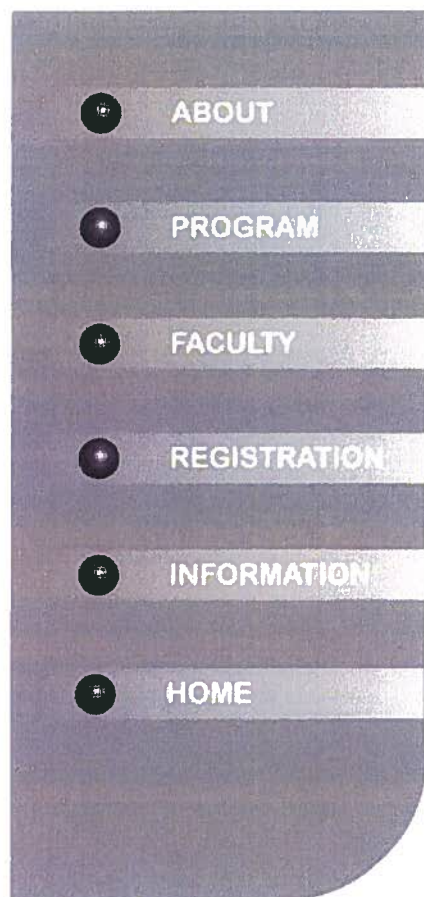
The Symposium is organized under the auspices and partial support of the "University Kidney Disease Research Associates", an organization devoted to supporting basic and clinical research in kidney disease leading to improved treatments and cures for, and to the prevention of, all forms of kidney disease.

TECHNOLOGICAL ADVANCES IN KIDNEY DISEASE RESEARCH

Objectives

- Understand the basics of stem cell biology, proteomics and other novel technologies in the diagnosis and treatment of kidney disease
- Identify, evaluate and differentiate different approaches to stem cell therapy and their applications to kidney disease
- Understand the application of proteomics in evaluation of renal function
- Discuss the potential role of biomarkers in kidney disease detection
- Understand the application of proteomic and stem cell research to advance understanding of the basis of human disease

TECHNOLOGICAL ADVANCES IN KIDNEY DISEASE RESEARCH



Friday, June 2nd, 2006

PROGRAM

8:00 Registration

8:45 Welcome and Introductory remarks: The Epidemic of Kidney Disease in the U.S.: [Vito M. Campese, MD](#)

Session I Proteomics: Basic Principles and Clinical Applications

Moderators: [Alan Yu, MD](#), [Alicia McDonough, PhD](#)

9:00 Applications of Expression and Functional Proteomics in Renal Research: [Jon B. Klein, MD, PhD](#)

9:35 The Role of Intact Protein Measurements in Proteomics: [Julian P. Whitelegge, Ph.D.](#)

10:10 Discovery of Urinary Biomarkers: [Mark Knepper, MD, PhD](#)

10:45 Exploring the Unknown: Proteomics and Glomerulosclerosis: [Agnes Fogo, MD](#)

11:20 Coffee, Tea Break

Session II Exploring New Technology in Evaluating Kidney Function and Disease

Moderators: [Donald J. Marsh, MD](#), [Laurence H. Kedes, MD](#)

11:35 RNA Interference: A Tailor Made Technique to Study Function of New Pathways? [Christopher Wilcox, MD, PhD](#)

12:10 Proteomics Approach to Elucidating Mechanisms of Renal Sodium Transport Regulation: [Alicia McDonough, PhD](#)

12:45 In vivo Imaging of Kidney Function in Diabetes: [Janos Peti-Peterdi, MD, PhD](#)

1:20 Lunch

Session III Stem Cell Research in Kidney Disease

Moderators: [Martin Pera, PhD](#), [Laurie DeLeve, MD, PhD](#)

2:20 Role of Stem Cells in Ischemic Tubular Injury: [Joseph V. Bonventre, MD, PhD](#)

2:55 Using Developmental Biology and Stem Cells to Construct and Deconstruct the Endocrine Pancreas: [Seung K. Kim, MD, PhD](#)

3:30 Engineering Constructs of Renal Tubules Using Stem Cells: [Roger E. DeFilippo, MD](#)

4:05 Use of Renal Tubular Cells in Clinical Nephrology: [David Humes, MD](#)

4:40 Adjournment

TECHNOLOGICAL ADVANCES IN KIDNEY DISEASE RESEARCH

ABOUT

PROGRAM

FACULTY

REGISTRATION

INFORMATION

HOME

FACULTY:

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