

The International Society of Nephrology's World Congress of Nephrology— The Flagship Event for Nephrologists Worldwide

The International Society of Nephrology (ISN) organizes the biennial World Congresses of Nephrology (WCN), the leading international scientific and clinical nephrology event, attracting nephrologists and researchers, as well as other healthcare professionals from related medical disciplines, from across the globe. To emphasize the global outreach of the ISN and contribute to the advancement of nephrology worldwide, the WCN rotate around continents and held in collaboration with local and regional societies. Such international partnerships allow professionals from all corners of the globe to exchange views on a wide variety of topics affecting nephrology and those suffering from kidney disease.

The World Congress of Nephrology 2007, April 21–25 Rio de Janeiro, Brazil

In partnership with the Sociedade Brasileira de Nefrologia (SBN) and the Sociedad Latinoamericana Nefrología e Hipertensión (SLANH), and thanks to the work of the highly dedicated and experienced Scientific Program and Local Organizing Committees, the global renal community and beyond look forward to four and a half days of outstanding presentations and debate bringing Renal Insights and Opportunities to WCN's 2007 host destination: Rio de Janeiro.

The WCN 2007 scientific program is organized into eight core themes: Molecular and Cell Biology and Physiology; Vascular Biology and Inflammation, Immunology and Pathology; Developmental Genetics and Pediatrics; General Clinical Nephrology; Chronic Kidney Disease (CKD), Diabetes and Hypertension; End-Stage Renal Disease and Dialysis; Transplantation; and Acute Renal Failure. These eight themes promise a broad and exciting range of symposia topics to be delivered by over 250 invited speakers who will review the hottest topics in clinical nephrology and renal science.

RIO—Renal Insights and Opportunities

Offering a mere snapshot of what participants can expect to gain from attending this

forthcoming World Congress, three WCN core theme leaders share just some of their program highlights:

Theme Overview: Chronic Kidney Disease (CKD), Diabetes, and Hypertension



Tomas Berl

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As chronic kidney disease (CKD), diabetes, and hypertension are at the very core of what most practicing nephrologists encounter on almost a daily basis, WCN 2007 will feature a number of symposia to address advances recently made in these areas. These sessions will emphasize how the novel findings can be translated into improved patient management of individuals suffering from these disorders.

A session devoted to targeting and preventing diabetic complications will look at inflammatory, oxidative, hexosamine-AGE and PPAR pathways, all of which could ultimately translate into therapeutic interventions. Of particular interest will be symposia addressing

novel treatments for CKD, including antifibrotic agents, endothelin antagonists, and glycosaminoglycans, treatments that are all currently undergoing extensive clinical trials.

Dare we dream that CKD can regress? This exciting possibility will be discussed in a symposium primarily, though not exclusively, focused on reversing diabetic nephropathy. As the risk of cardiovascular (CV) disease in CKD is a growing public health problem, another symposium will analyze the risk factors that predict such a complication, with emphasis on how renal disease may contribute to CV disease, and how the risk factors interact with each other.

What role do the genes play in hypertension? The increasing recognition that genetic factors influence the development of hypertension will be discussed in a symposium on the topic. A session covering new insights on the renin-angiotensin aldosterone system will examine the role of ACE 2 in blood pressure control, the role of aldosterone antagonists in renal disease, and the potential use of novel renin inhibitors—which are likely to become available for clinical use in the near future—in the treatment of hypertension.

As this is a world congress, WCN 2007 will include a session on kidney disease in developing countries and among ethnic minorities. The CKD epidemic is clearly not geographically limited, and we will learn about its impact on the various continents.

Finally, as the population ages, we are faced with a number of medical and ethical dilemmas in the treatment of an increasing number of octogenarians. A session on this subject will allow participants to hear experts who have thought about the ramifications of this emerging problem.

Theme Overview: Vascular Biology and Inflammation, Immunology, and Pathology



Jürgen Floege

Professor of Medicine, University of Aachen, Germany

WCN 2007 features a 'bench-to-bedside' theme par excellence on Vascular Biology and Inflammation, Immunology, and Pathology that will cover the latest clinical developments and offer a view on things to come. This theme encompasses basic science symposia that will discuss the state-of-the-art in various research areas, as well as a number of symposia that will look at the transition from basic research to clinical science.

The basic science block is devoted to mediators of progressive vascular and renal damage and will examine questions such as: What is the role of retinoic acid receptors, PI3-kinase, and Wnt-signaling in renal disease? How does intrarenal hypoxia contribute to renal failure—and can therapy can target this? What role do oxygen radicals play in hypertension and renal disease?

Symposia devoted to the role of specific cell types in renal failure and fibrosis will attempt to identify novel ways to combat progressive loss of nephrons or, possibly, to reverse renal failure. Understanding the role of different cell types is intricately linked to the question of whether stem cells can accelerate healing or even fuel regeneration of damaged tubules or glomeruli. While we still need to resolve a large number of technical issues and potential safety concerns, the preliminary experimental data on the effects of stem cells in renal disease

offers great promise and will be reviewed here. For those interested in autoimmune disease, symposia on autoimmunity and kidney disease and ANCA-positive vasculitis will provide insights into the rapidly moving fields of regulatory T-cells and pathogenesis of lupus and vasculitis. From a more clinical perspective, the new classification of lupus nephritis will be discussed, as will be the latest developments in lupus and vasculitis therapy. Another symposium will cover membranous and membranoproliferative glomerulonephritis. Information on pathogenesis is still sparse, but the recent discovery of better experimental models may provide new insights.

Finally, colleagues from our host country Brazil, as well as from elsewhere in South America, and Asia may be particularly interested in clinical symposia dealing with infectious and environmental causes of renal disease.

Theme Overview: Transplantation



Philip O'Connell

Clinical Associate Professor, Faculty of Medicine of the University of Sydney, Australia

The Transplantation theme will provide an excellent update on renal transplantation and has been tailor-made for the nephrologist. The past five years have seen significant advances in transplantation, as well as major changes in treatment options and patient management. New immunosuppressive protocols have undergone extensive evaluation, and the era of immunosuppression created specifically for the individual patient is nearer to reality.

While new immunosuppressive regimens have resulted in an improvement in outcomes, rejection remains a major issue. Furthermore, there is an increasing recognition of the role of antibodies in transplant rejection and outcomes. Antibody mediated rejection used to be avoided by avoiding highly sensitized patients. Now it is recognized as being a major diagnostic and

management issue, post-transplant. With a better understanding of the role of antibody have come new approaches to deal with highly sensitized patients.

Treatments for antibody mediated rejection, ABO incompatible transplantation, and transplantation across a positive cross match are now viable treatment options and outcomes continue to improve. These issues will be dealt with in detail in a symposium on the role of antibody in rejection. With ever more potent immunosuppression, rejection is no longer the major cause of acute graft loss, early post-transplant. In many centers, BK virus nephropathy has overtaken rejection as the major cause of graft loss. Hence it is fitting include an update on BK nephropathy as part of this theme.

In a symposium on infectious complications, the difficult issues of transplantation in hepatic C and HIV individuals will also be discussed. A symposium highlighting the latest understanding of chronic allograft nephropathy, as well as a symposium designed to cover specific issues in pediatric transplantation, have been included. As in any aspect of nephrology, a solid understanding of the basic science is essential for the development of rational clinical treatment options. Hence, the transplantation theme will provide an excellent review of the basic sciences. State-of-the-art symposia have been developed to cover topics such as tolerance, innate immunity, and the immune biology of rejection. Experts in each aspect of transplantation have been enlisted to take part in what will no doubt prove to be an excellent review of renal transplantation. ■

For the full program and to participate at this unique congress, sharing critical medical information and ideas in a spectacular setting—the World Congress of Nephrology, Rio de Janeiro, Brazil, April 21–25, 2007, please visit: www.wcn2007.org.

The International Society of Nephrology (ISN) is a not-for-profit society whose mission is the global advancement of nephrology. ISN promotes research and education to prevent and treat kidney disease throughout the world. Further information is available at www.isn-online.org or by calling: +32 2 743 1546.