PRESIDENT’S MESSAGE
AND REPORT OF THE
2005 ANNUAL MEETING

Happy New Year!

We have had a successful 2005. In the last year, we have established an endowment for a new award – the CASN Young Investigator Award – to promote the career of young physician scientist or physician/scientist in nephrology research. We have established a new website for CASN (http://casn.bwh.harvard.edu/). CASN meeting information and other activities will be posted on the website.

Our 2005 annual meeting was held in the Philadelphia Marriott Downtown on November 10th, 2005 in Philadelphia, Pennsylvania.

The meeting turned out to be a great success. Dr. Victoria Lim, the CASN Board member and the Chair of the Young Investigator Award Committee introduced the first CASN Young Investigator Award recipients: Drs. Liqun Bai and Weining Lu, two outstanding young physician scientists. Each Young Investigator Awardee delivered a short speech. I had the pleasure to present the award to both recipients. I look forward to seeing more young talented physician/scientists to receive this annual award!

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Chinese American Society of Nephrology NEWSLETTER

President: Jing Zhou, M.D., Ph.D.
Brigham and Women’s Hospital
Boston, MA

February 2006


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Glutamate has been demonstrated as a signal molecule that actively involves insulin secretion in conjunction with intracellular calcium in the pancreatic beta cells. Dr. Bai’s research team has found that VGLUT2 is a rate-limiting step for the glutamate signaling in insulin secretion, and increased glucose concentration has directly impact on the gene transcription of VGLUT2. He found that AMP kinase is a key signal pathway in upregulation of VGLUT2 transcripts by glucose. The promoter activity of VGLUT2 is tightly controlled by the interaction of transcriptional factors Sp1, NFkB and GATA3. Further study of signaling pathway between AMP kinase and these transcriptional factors is undertaking to elucidate the precise mechanism of glucose-mediated transcriptional regulation of VGLUT2. The results of his study will contribute to our knowledge of regulation of insulin secretion in diabetes.

Key References:
Weining Lu, MD 

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the annual meetings of the American Society of Nephrology and the American Society of Human Genetics. He has also been invited to chair scientific session at the annual meeting of the American Society of Nephrology. Dr. Lu has been awarded 2005 Young Investigator Grant from the National Kidney Foundation and has received research project grant from the Evans Medical Foundation. He has also been selected to be Boston University’s applicant for the 2006 Searle Scholars Award. The long-term goal of Dr. Lu’s research is to understand the molecular basis of congenital anomalies of the kidney and urinary tract, which is one of the commonest genetic disorders affecting 1% of human fetuses.

A selection of Dr. Lu’s published articles are listed below:


LIQUN BAI, MD, CO-RECIPIENT OF THE FIRST CASN YOUNG INVESTIGATOR AWARD

Every year, approximately one out of every 3000 American is diagnosed with end-stage renal disease (ESRD) and started dialysis. Based on the United States Renal Data System 2004 annual data report, by 2030 the ESRD population could increase by 460,000, with two thirds of these new patients having diabetes as the primary cause of their kidney failure (USRDS 2003 ADR). With growth of the aging baby boomer population, diabetes and its complications, such as chronic kidney disease (CKD) and cardiovascular diseases, have emerged as a major public health concern.

Liqun Bai, MD, one of two recipients of 2005 Young Investigator Award of the Chinese American Society of Nephrology, is a Fellow of Nephrology and Research Assistant Professor in the University of Arizona. He is currently exploring ways to prevent diabetes and diabetes related CKD. Dr. Bai finished his medical school in the First Military Medical University (Now as Southern Medical University) in Guang Zhou, China in 1988 and received his first nephrology training in the General Hospital of Chinese PLA in Beijing. In 1993, He started his first molecular biology study in nephrology by establishing molecular structure of Aquaporin 2, the vasopressin regulated water channel, in Tokyo, Japan. He came to the United States in 1995 as a postdoctoral Research Associate in the University of Arizona. Dr. Bai has been working on molecular structure and gene regulation of renal transporters, including sodium-dependent citrate transporter, sodium-dependent phosphate cotransporters, and vesicular glutamate transporter (VGLUT). Recently, he received a NIH R01 grant to explore the role of glutamate and vesicular glutamate transporter in insulin regulation in response to glucose concentration.

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President’s Message and Report of the 2005 Annual Meeting

Dr. Tjian Receives the Distinguished Scientist Award

CASN board director Dr. Larry Chen introduced our keynote speaker Robert Tjian, recipient of the 2005 Distinguished Scientist Award of CASN. Dr. Tjian gave a fabulous lecture on “A Biochemist’s Journey through the Land of Transcription Biology”. Dr. Tjian is an outstanding scientist, and a pioneer on studies of gene transcription. Dr. Tjian has ranked among the world’s 10 most-cited scientists for several years by ISI. Dr. Tjian is a Howard Hughes Investigator and Professor of Biochemistry and Molecular Biology at University of California, Berkeley, a member of the Academia Sinica of China, the U.S. National Academy of Sciences, and the American Academy of Arts and Sciences. Tjian’s lecture was philosophical, inspiring, and illuminating. Dr. Tjian’s lecture was followed by an open live discussion with the audience on “how to succeed as a Chinese”. We had many excellent practical questions and answers and discussions! We also had excellent food with coconut shrimps!

CASN 2005 Annual Meeting Sponsors

The CASN gratefully acknowledge the generous support from the following companies and organizations:

Amgen

Fresenius Medical Care North America

and Kidney Dialysis Foundation of Singapore

CONTINUED FROM PAGE 2
Dr. Gordon Ku
Founder of Kidney Dialysis Foundation of Singapore

Dr Gordon Ku is a well-known nephrologist who runs a well established nephrology practice at the Ku Kidney & Medical Centre in Mount Elizabeth Hospital in Singapore. However, his achievements go well beyond the realms of clinical medicine.

He graduated from the Hong Kong University in 1965 and did his housemanship in Hong Kong in General Surgery and Paediatrics. He then became a medical officer in Clinical Pathology after which he decided to move to the University College Hospital in London to take up the post of Honorary Senior House Officer in Medicine. He attained the Membership of the Royal College of Physicians in 1970. After postings as Senior House Officer in Medicine at Hammersmith Hospital, then in Nephrology at the Royal Free Hospital, he became Registrar in the same Hospital in 1972.

He then made the important decision to move to Singapore as a Lecturer in the Department of Medicine of the then University of Singapore in 1973. Since then, he has been a resident in Singapore for more than 30 years. He held the post of Senior Lecturer from 1974 to 1978.


Armed with his knowledge attained in institutional practice, he set his innovative and creative mind to develop nephrology in the private sector. He was the first nephrologist to operate a chronic haemodialysis programme in the private sector in 1979, and founded the first commercial dialysis provider company, Renalcare, in 1985. He was also the first physician to start a renal transplantation programme in the private sector.

Even though he was in the private sector, he has been called upon to perform several national duties: namely as President of the Singapore Society of Nephrology in 1981 and 1982, Honorary Lecturer in Post-graduate Medicine, National University of Singapore from 1979 to 1983, as a member of the Renal Medicine Specialty Board, Academy of Medicine from 1996 to 1998 and a co-opted member, National Committee on Renal Care 1999 to 2001, and then full member of the same Committee from 2002 to now.

Those who know Dr Ku also know his passion for wine. To testify to the height of achievement in this area, he became a member of an elite brotherhood called the Chevalier du Tastevin of Burgundy in France in 1987.

Perhaps what has made Dr Ku most well known in recent years is his effort to bring dialysis to the financially needy. To this end, he founded the Kidney Dialysis Foundation in 1996 to complement the role of the existing National Kidney Foundation (NKF) of Singapore. It is well known that he did not always agree with the NKF on certain policy issues. Some of these have been debated publicly in the media when KDF was first formed. He is the only person who organized a group of equally committed individuals to form the Kidney Dialysis Foundation. With the backing of the Ministry of Health, KDF has since helped a total of about 300 patients to receive subsidized dialysis treatment. Some of them were denied dialysis by the NKF for various reasons.

Dr Ku also spearheaded the State-of-the-Art Nephrology Course in 1997, 1999 and 2002 to bring nephrology education to the regional education complementing the traditional conference formula. Dr. Ku is a keen promoter of the careers of young physicians/scientists in nephrology research. He is a strong believer and supporter of the establishment of the Young Investigator Award of CASN.

Last but not least, his wife Mrs (Dr) Gloria Ku has to be mentioned, as she has been supportive of Dr Ku’s ventures all these years.

Weining Lu, MD, Co-Recipient of the First CASN Young Investigator Award

The American Society of Nephrology (CASN) is proud to present the 1st Young Investigator Award to Dr. Weining Lu, Assistant Professor of Medicine at the Boston University Medical Center.

Weining Lu was born in 1966 in Ningbo city, Zhejiang province, China. He attended Zhejiang University School of Medicine (former Zhejiang Medical University) where he studied clinical medicine. After receiving his medical degree, Dr. Lu spent three years as a surgical resident in the Department of Surgery at the Second Affiliated Hospital of Zhejiang University School of Medicine. In the meantime, he developed a keen desire to move into scientific research and came to the United States in 1992 for advanced scientific training.

After completing his graduate studies and received his M.Sc. in the biomedical science from Northeastern University in Boston, Massachusetts, Dr. Lu joined the laboratory of Dr. Jing Zhou at the Renal Division, Brigham and Women’s Hospital, Harvard Medical School. Dr. Lu spent next four years in Zhou’s lab, where he was instrumental in creating the very first mouse model of autosomal dominant polycystic kidney disease (ADPKD) using gene-targeting strategies. After the gene (PKD1) that is mutated in ADPKD was found, progress was limited until an animal model was available to study the progression and cellular biology of the disease. The studies of two Pkd1 mouse models Dr. Lu created further established that loss of heterozygosity and protein function of the PKD1 gene is the cause of human ADPKD.

In 1999, Dr. Lu became Technical Director of the Genome Laboratory at Brigham and Women’s Hospital and Instructor in Medicine at Harvard Medical School, where he continued to expand his molecular genetic and genomic skills. A number of projects were planned for the Genome Laboratory and Dr. Lu was responsible for all technical aspects of genome research - planning, design, and implementation of new technologies, including high-throughput and shotgun DNA sequencing, transcriptional profiling, TaqMan real-time quantitative PCR, genotyping, BAC library screening and physical mapping. Meanwhile, Dr. Lu participated in a mouse N-ethyl-N-nitrosourea (ENU) mutagenesis project and the positional cloning of the juvenile cystic kidney (Jck) gene in the laboratory of Dr. David R. Beier. He identified a point mutation in the Pkd1 gene in an ENU mutant line with polycystic kidney disease. This is the first report of a missense mutation in the mouse Pkd1 gene causing polycystic kidney disease, which is similar in nature to the mutations occurring in humans. This ENU mutation provides a better animal model than knockout mice, which carry a large deletion and neomycin selection cassette. Together with other colleagues, Dr. Lu also found a mutation in a ‘novel’ Nef kinase gene that causes juvenile cystic kidney (Jck) in mice.

In 2002, Dr. Lu joined the laboratory of Dr. Richard L. Maas in the Genetics Division, Brigham and Women’s Hospital to study early kidney development, and participated in related research in the Developmental Genome Anatomy Project (DGAP), which is a program project headed by Dr. Cynthia C. Morton. The objective of DGAP is to clone and analyze genes that are disrupted or dysregulated by balanced chromosomal translocations in patients with multiple congenital anomalies. Dr. Lu’s research focus is on several DGAP cases with renal and urinary tract defects, generating mouse models of several cloned candidate genes. Dr. Lu has identified several genes that are associated with vesicoureteral reflux (VUR) and congenital anomalies of the kidney and urinary tract (CAKUT) in human subjects and mouse models.

In 2004, Dr. Lu was recruited by Dr. David J. Salant to the Renal Section, Department of Medicine, Boston University Medical Center as Assistant Professor of Medicine. He is now an independent principal investigator and studies development of the kidney and urinary tract and molecular genetics of congenital renal diseases. Dr. Lu has been invited to speak and present his research work at national and international conferences, including...
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President