

This Month's Highlights

**UP FRONT MATTERS**

**Editorials**

- 453 **World Kidney Day 2009: Problems and Challenges in the Emerging Epidemic of Kidney Disease**  
Lynda A. Szczech, William Harmon, Thomas H. Hostetter, Paul E. Klotman, Neil R. Powe, John R. Sedor, Paul Smedberg, and Jonathan Himmelfarb
- 455 **Albuminuria, Wherefore Art Thou?**  
George Jarad and Jeffrey H. Miner  
• See related article by Russo et al. (pp. 489–494).
- 457 **The Not-so-Sweet Side of Fructose**  
Mary E. Choi  
• See related article by Cirillo et al. (pp. 545–553).
- 459 **Proteinuria and Epithelial-to-Mesenchymal Transition: The Role of Complement**  
Serena Bagnasco and Lorraine Racusen  
• See related article by Tang et al. (pp. 593–603).
- 460 **Salivary Phosphorus Binding: A Novel Approach to Control Hyperphosphatemia**  
Garabed Eknayan  
• See related article by Savica et al. (pp. 639–644).
- 462 **Effect of Membrane Permeability on Survival of Hemodialysis Patients**  
Alfred K. Cheung and Tom Greene  
• See related article by Locatelli et al. (pp. 645–654).
- Occasional Observation**
- 465 **The Case for Using Albuminuria in Staging Chronic Kidney Disease**  
Ron T. Gansevoort and Paul E. de Jong

**Clinical Commentary**

- 469 **Modern Treatment of Amyloidosis: Unresolved Questions**  
Laura M. Dember

**Brief Review**

- 473 **Lipid-Protein Interactions along the Slit Diaphragm of Podocytes**  
Bernhard Schermer and Thomas Benzing
- 479 **Hemoglobin Variability in Anemia of Chronic Kidney Disease**  
Kamyar Kalantar-Zadeh and George R. Aronoff

**BRIEF COMMUNICATION**

- 489 ★ **Impaired Tubular Uptake Explains Albuminuria in Early Diabetic Nephropathy**  
Leileata M. Russo, Ruben M. Sandoval, Silvia B. Campos, Bruce A. Molitoris, Wayne D. Comper, and Dennis Brown  
• See related editorial by Jarad and Miner et al. (pp. 455–457).

**BASIC RESEARCH**

- 495 **CD36 Regulates Oxidative Stress and Inflammation in Hypercholesterolemic CKD**  
Daryl M. Okamura, Subramaniam Pennathur, Katie Pasichnyk, Jesús M. López-Guisa, Sarah Collins, Maria Febbraio, Jay Heinecke, and Allison A. Eddy
- 506 **Connexin Expression in Renin-Producing Cells**  
Lisa Kurtz, Ulrike Janssen-Bienhold, Armin Kurtz, and Charlotte Wagner
- 513 **Epoxyeicosatrienoic Acid Activates BK Channels in the Cortical Collecting Duct**  
Peng Sun, Wen Liu, Dao-Hong Lin, Peng Yue, Rowena Kemp, Lisa M. Satlin, and Wen-Hui Wang

- 524 ★ **Soluble Thrombomodulin Protects Ischemic Kidneys**  
Asif A. Sharfuddin, Ruben M. Sandoval, David T. Berg, Grant E. McDougal, Silvia B. Campos, Carrie L. Phillips, Bryan E. Jones, Akanksha Gupta, Brian W. Grinnell, and Bruce A. Molitoris
- 535 **Divergent Role of Donor Dendritic Cells in Rejection versus Tolerance of Allografts**  
Takuya Ueno, Katsunori Tanaka, Mollie Jurewicz, Takaya Murayama, Indira Guleria, Paolo Fiorina, Jesus C. Paez, Andrea Augello, Andrea Vergani, Masie Wong, R. Neal Smith, and Reza Abdi
- 545 **Ketohexokinase-Dependent Metabolism of Fructose Induces Proinflammatory Mediators in Proximal Tubular Cells**  
Pietro Cirillo, Michael S. Gersch, Wei Mu, Philip M. Scherer, Kyung Mee Kim, Loreto Gesualdo, George N. Henderson, Richard J. Johnson, and Yuri Y. Sautin  
• See related editorial by Choi (pp. 457–459).
- 554 **PKC- $\beta$ 1 Mediates Glucose-Induced Akt Activation and TGF- $\beta$ 1 Upregulation in Mesangial Cells**  
Dongcheng Wu, Fangfang Peng, Baifang Zhang, Alistair J. Ingram, Darren J. Kelly, Richard E. Gilbert, Bo Gao, and Joan C. Krepinsky
- 567 **HGF and BMP-7 Ameliorate High Glucose-Induced Epithelial-to-Mesenchymal Transition of Peritoneal Mesothelium**  
Min-A Yu, Kyung-Sook Shin, Jung Hye Kim, Yong-Il Kim, Soon Sup Chung, Sun-Hee Park, Yong-Lim Kim, and Duk-Hee Kang
- 582 **Cyclooxygenase-2 Mediates Dialysate-Induced Alterations of the Peritoneal Membrane**  
Luiz S. Aroeira, Enrique Lara-Pezzi, Jesús Loureiro, Abelardo Aguilera, Marta Ramírez-Huesca, Guadalupe González-Mateo, M. Luisa Pérez-Lozano, Patricia Albar-Vizcaíno, M-Auxiliadora Bajo, Gloria del Peso, José Antonio Sánchez-Tomero, José Antonio Jiménez-Heffernan, Rafael Selgas, and Manuel López-Cabrera
- 593 ★ **C3a Mediates Epithelial-to-Mesenchymal Transition in Proteinuric Nephropathy**  
Ziyong Tang, Bao Lu, Ellen Hatch, Steven H. Sacks, and Neil S. Sheerin  
• See related article by Bagnasco and Racusen (pp. 459–460).
- 604 **IL-6 and Serum Amyloid A Synergy Mediates Angiotensin II-Induced Muscle Wasting**  
Liping Zhang, Jie Du, Zhaoyong Hu, Guofeng Han, Patrice Delafontaine, Gabriela Garcia, and William E. Mitch

## CLINICAL EPIDEMIOLOGY

- 613 **Low Serum Testosterone Increases Mortality Risk among Male Dialysis Patients**  
Juan Jesús Carrero, Abdul Rashid Qureshi, Paolo Parini, Stefan Arver, Bengt Lindholm, Peter Bárány, Olof Heimbürger, and Peter Stenvinkel
- 621 **Age and Comorbidities Are Effect Modifiers of Gender Disparities in Renal Transplantation**  
Dorry L. Segev, Lauren M. Kucirka, Pooja C. Oberai, Rulan S. Parekh, L. Ebony Boulware, Neil R. Powe, and Robert A. Montgomery
- 629 **New Equations to Estimate GFR in Children with CKD**  
George J. Schwartz, Alvaro Muñoz, Michael F. Schneider, Robert H. Mak, Frederick Kaskel, Bradley A. Warady, and Susan L. Furth

## CLINICAL RESEARCH

- 639 ★ **Salivary Phosphate-Binding Chewing Gum Reduces Hyperphosphatemia in Dialysis Patients**  
Vincenzo Savica, Lorenzo A. Calò, Paolo Monardo, Paul A. Davis, Antonio Granata, Domenico Santoro, Rodolfo Savica, Rosa Musolino, Maria Cristina Comelli, and Guido Bellinghieri  
• See related editorial by Eknayan (pp. 460–462).
- 645 ★ **Effect of Membrane Permeability on Survival of Hemodialysis Patients**  
Francesco Locatelli, Alejandro Martin-Malo, Thierry Hannedouche, Alfredo Loureiro, Menelaos Papadimitriou, Volker Wizemann, Stefan H. Jacobson, Stanislaw Czekałski, Claudio Ronco, and Raymond Vanholder, for the Membrane Permeability Outcome (MPO) Study Group  
• See related editorial by Cheung and Greene (pp. 462–464).
- 655 **Avosentan Reduces Albumin Excretion in Diabetics with Macroalbuminuria**  
René R. Wenzel, Thomas Littke, Susan Kuranoff, Christiane Jürgens, Heike Bruck, Eberhard Ritz, Thomas Philipp, and Anna Mitchell, for the SPP301 (Avosentan) Endothelin Antagonist Evaluation in Diabetic Nephropathy Study Investigators
- 665 **Nocturnal Hemodialysis Improves Erythropoietin Responsiveness and Growth of Hematopoietic Stem Cells**  
Christopher T. Chan, Peter P. Liu, Sara Arab, Nazir Jamal, and Hans A Messner
- 672 ★ **Creatinine Kinetics and the Definition of Acute Kidney Injury**  
Sushrut S. Waikar and Joseph V. Bonventre