

1205 **This Month's Highlights**

**Future Articles**

**ASN News**

1207 **Nephrology beyond JASN**

## Editorial

1218 **Early Detection of Progressive Chronic Kidney Disease: Is It Feasible?**

Ron T. Gansevoort, Stephan J.L. Bakker, and Paul E. de Jong

→ See related article by Ishani et al. (pp. 1444–1452).

## Frontiers in Nephrology

Charles D. Pusey, Guest Editor

1221 **The Continuing Challenge of Anti-Neutrophil Cytoplasm Antibody–Associated Systemic Vasculitis and Glomerulonephritis**

Charles D. Pusey

1224 **Anti-Neutrophil Cytoplasm–Associated Glomerulonephritis**

Matthew David Morgan, Lorraine Harper, Julie Williams, and Caroline Savage

1235 **Pathogenesis of Vascular Inflammation by Anti-Neutrophil Cytoplasmic Antibodies**

J. Charles Jennette, Hong Xiao, and Ronald J. Falk

1243 **Is There a Role for TNF- $\alpha$  in Anti-Neutrophil Cytoplasmic Antibody–Associated Vasculitis? Lessons from Other Chronic Inflammatory Diseases**

Marc Feldmann and Charles D. Pusey

1253 **T Cells in Crescentic Glomerulonephritis**

Peter G. Tipping and Stephen R. Holdsworth

## Basic Science Articles

### Cell and Transport Physiology

1264 **Dietary Sodium Intake Regulates the Ubiquitin-Protein Ligase Nedd4-2 in the Renal Collecting System**

Dominique Loffing-Cueni, Sandra Y. Flores, Daniel Sauter, Dorothée Daidié, Nicole Siegrist, Pierre Meneton, Olivier Staub, and Johannes Loffing

1275 ★ **Distal Colonic K<sup>+</sup> Secretion Occurs via BK Channels**

Matthias Sausbier, Joana E. Matos, Ulrike Sausbier, Golo Beranek, Claudia Arntz, Winfried Neuhuber, Peter Ruth, and Jens Leipziger

### Genetics and Development

1283 ★ **Differential Expression of the Intermediate Filament Protein Nestin during Renal Development and Its Localization in Adult Podocytes**

Jing Chen, Scott Boyle, Min Zhao, Wei Su, Keiko Takahashi, Linda Davis, Mark DeCaestecker, Takamune Takahashi, Matthew D. Breyer, and Chuan-Ming Hao

- 1292 **Isolation and Confirmation of a Calcium Excretion Quantitative Trait Locus on Chromosome 1 in Genetic Hypercalciuric Stone-Forming Congenic Rats**  
Richard R. Hoopes, Jr., Frank A. Middleton, Saunak Sen, Paul A. Hueber, Robert Reid, David A. Bushinsky, and Steven J. Scheinman
- Basic Mineral Metabolism**
- 1305 **Fibroblast Growth Factor 23 Is a Counter-Regulatory Phosphaturic Hormone for Vitamin D**  
Shiguang Liu, Wen Tang, Jianping Zhou, Jason R. Stubbs, Qiang Luo, Min Pi, and L. Darryl Quarles
- Hemodynamics and Vascular Regulation**
- 1316 ★ **Influence of Acute Renal Failure on Coronary Vasoregulation in Dogs**  
John G. Kingma, Jr., Chantal Vincent, Jacques R. Rouleau, and Iris Kingma
- Basic Immunology and Pathology**
- 1325 **Relaxin Improves Renal Function and Histology in Aging Munich Wistar Rats**  
Lee A. Danielson, Angela Welford, and Alexis Harris
- 1334 ★ **Podocyte-Specific Deletion of Integrin-Linked Kinase Results in Severe Glomerular Basement Membrane Alterations and Progressive Glomerulosclerosis**  
Chiraz El-Aouni, Nadja Herbach, Simone M. Blattner, Anna Henger, Maria P. Rastaldi, George Jarad, Jeffrey H. Miner, Marcus J. Moeller, Rene St-Arnaud, Shoukat Dedhar, Lawrence B. Holzman, Ruediger Wanke, and Matthias Kretzler
- 1345 **Fever-Like Temperatures Affect Neutrophil NF- $\kappa$ B Signaling, Apoptosis, and ANCA-Antigen Expression**  
Ralph Kettritz, Mira Choi, Birgit Salanova, Maren Wellner, Susanne Rolle, and Friedrich C. Luft
- 1354 **Distinct and Separable Roles of the Complement System in Factor H-Deficient Bone Marrow Chimeric Mice with Immune Complex Disease**  
Jessy J. Alexander, O.G.B. Aneziokoro, Anthony Chang, Bradley K. Hack, Adam Markaryan, Alexander Jacob, Roger Luo, Michael Thirman, Mark Haas, and Richard J. Quigg
- Pathophysiology of Renal Disease and Progression**
- 1362 ★ **Spironolactone Prevents Diabetic Nephropathy through an Anti-Inflammatory Mechanism in Type 2 Diabetic Rats**  
Sang-Youb Han, Cy-Hyun Kim, Han-Seong Kim, Yi-Hwa Jee, Hye-Kyoung Song, Mi-Hwa Lee, Kum-Hyun Han, Hyoung-Kyu Kim, Young-Sun Kang, Jee-Young Han, Young-Sik Kim, and Dae-Ryong Cha
- 1373 **Heme Oxygenase-1 Protects Rat Kidney from Ureteral Obstruction *via* an Antiapoptotic Pathway**  
Jin Hyun Kim, Jung Ill Yang, Myeong Hee Jung, Jeong Seok Hwa, Kee-Ryeong Kang, Dong Jun Park, Gu Seob Roh, Gyeong Jae Cho, Wan Sung Choi, and Se-Ho Chang
- 1382 **Antioxidant Ceruloplasmin Is Expressed by Glomerular Parietal Epithelial Cells and Secreted into Urine in Association with Glomerular Aging and High-Calorie Diet**  
Jocelyn E. Wiggins, Meera Goyal, Bryan L. Wharram, and Roger C. Wiggins
- 1388 **Chronic Kidney Disease Causes Defects in Signaling through the Insulin Receptor Substrate/Phosphatidylinositol 3-Kinase/Akt Pathway: Implications for Muscle Atrophy**  
James L. Bailey, Bin Zheng, Zhaoyong Hu, S. Russ Price, and William E. Mitch
- 1395 ★ **Mammalian Target of Rapamycin Pathway Blockade Slows Progression of Diabetic Kidney Disease in Rats**  
Núria Lloberas, Josep M. Cruzado, Marcella Franquesa, Immaculada Herrero-Fresneda, Joan Torras, Gabriela Alperovich, Inés Rama, August Vidal, and Josep M. Grinyó
- 1405 **High Glucose Blunts Vascular Endothelial Growth Factor Response to Hypoxia *via* the Oxidative Stress-Regulated Hypoxia-Inducible Factor/Hypoxia-Responsible Element Pathway**  
Pisut Katavetin, Toshio Miyata, Reiko Inagi, Tetsuhiro Tanaka, Ryoji Sassa, Julie R. Ingelfinger, Toshiro Fujita, and Masaomi Nangaku
- 1414 **Uptake of Chemically Reactive, DNA-Damaging Sulfuric Acid Esters into Renal Cells by Human Organic Anion Transporters**  
Nadiya Bakhiya, Monika Stephani, Andrew Bahn, Bernhard Ugele, Albrecht Seidel, Gerhard Burckhardt, and Hansruedi Glatt

## Clinical Science Articles

### Clinical Nephrology

- 1422 **Urine Composition in Type 2 Diabetes: Predisposition to Uric Acid Nephrolithiasis**  
Mary Ann Cameron, Naim M. Maalouf, Beverley Adams-Huet, Orson W. Moe, and Khashayar Sakhaee

### Human Genetics

- 1429 **Autosomal Dominant Pseudohypoaldosteronism Type 1: Mechanisms, Evidence for Neonatal Lethality, and Phenotypic Expression in Adults**  
David S. Geller, Junhui Zhang, Maria-Christina Zennaro, Alberto Vallo-Boado, Juan Rodriguez-Soriano, Laszlo Furu, Robert Haws, Daniel Metzger, Barbara Botelho, Lefkothea Karaviti, Andrea M. Haqq, Howard Corey, Sandra Janssens, Pierre Corvol, and Richard P. Lifton

- 1437 **Genetic Investigation of Autosomal Recessive Distal Renal Tubular Acidosis: Evidence for Early Sensorineural Hearing Loss Associated with Mutations in the *ATP6V0A4* Gene**  
Rosa Vargas-Poussou, Pascal Houillier, Nelly Le Pottier, Laurence Strompf, Chantal Loirat, Véronique Baudouin, Marie-Alice Macher, Michèle Déchaux, Tim Ulinski, François Nobili, Philippe Eckart, Robert Novo, Mathilde Cailliez, Rémi Salomon, Hubert Nivet, Pierre Cochat, Ivan Tack, Anne Fargeot, François Bouissou, Gwenaelle Roussey Kesler, Stéphanie Lorotte, Nathalie Godefroid, Valérie Layet, Gilles Morin, Xavier Jeunemaître, and Anne Blanchard

### Epidemiology and Outcomes

- 1444 ★ **Association of Single Measurements of Dipstick Proteinuria, Estimated Glomerular Filtration Rate, and Hematocrit with 25-Year Incidence of End-Stage Renal Disease in the Multiple Risk Factor Intervention Trial**  
Areef Ishani, Greg A. Grandits, Richard H. Grimm, Kenneth H. Svendsen, Allan J. Collins, Ronald J. Prineas, and James D. Neaton; for the MRFIT Research Group  
→ See related editorial by Gansevoort *et al.* (pp. 1218–1220).

- 1453 **Increasing Body Mass Index and Obesity in the Incident ESRD Population**  
Holly J. Kramer, Anand Saranathan, Amy Luke, Ramone A. Durazo-Arvizu, Cao Guichan, Susan Hou, and Richard Cooper

- 1460 **Left Ventricular Systolic Function Monitoring in Asymptomatic Dialysis Patients: A Prospective Cohort Study**  
Carmine Zoccali, Francesco A. Benedetto, Giovanni Tripepi, Francesca Mallamaci, Francesco Rapisarda, Giuseppe Seminara, Graziella Bonanno, and Lorenzo S. Malatino

### Hemodynamics and Vascular Regulation

- 1466 **Uric Acid and Endothelial Dysfunction in Essential Hypertension**  
Carmine Zoccali, Raffaele Maio, Francesca Mallamaci, Giorgio Sesti, and Francesco Perticone

### Chronic Kidney Disease

- 1472 ★ **Non-Contrast-Enhanced Computerized Tomography and Analgesic-Related Kidney Disease: Report of the National Analgesic Nephropathy Study**  
William L. Henrich, Richard L. Clark, Judith P. Kelly, Vardaman M. Buckalew, Andrew Fenves, William F. Finn, Joseph I. Shapiro, Paul L. Kimmel, Paul Eggers, Larry E. Agodoa, George A. Porter, Samuel Shapiro, Robert Toto, Theresa Anderson, L. Adrienne Cupples, and David W. Kaufman
- 1481 **Early Changes in Bioelectrical Estimates of Body Composition in Chronic Kidney Disease**  
Vincenzo Bellizzi, Luca Scalfi, Vincenzo Terracciano, Luca De Nicola, Roberto Minutolo, Maurizio Marra, Bruna Guida, Bruno Cianciaruso, Giuseppe Conte, and Biagio R. Di Iorio

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