

## This Month's Highlights

### UP FRONT MATTERS

#### Editorials

**1439 Fenestrated Glomerular Capillaries Are Unique**

Wilhelm Kriz

- See related article by Ichimura et al. (pp. 1463–1471).

**1440 Hemoglobin in the Kidney: Breaking with Traditional Dogma**

Volker H. Haase

- See related article by Nishi et al. (pp. 1500–1508).

**1442 Active Vitamin D and Survival**

Myles Wolf

- See related article by Shoben et al. (pp. 1613–1619).

#### Brief Reviews

**1444 Tracking the Toll of Kidney Disease**

Anushree C. Shirali and Daniel R. Goldstein

**1451 Molecular Determinants of Magnesium Homeostasis: Insights from Human Disease**

R. Todd Alexander, Joost G. Hoenderop, and René J. Bindels

#### Science in Renal Medicine

**1459 The Aggravating Mechanisms of Aldosterone on Kidney Fibrosis**

Giuseppe Remuzzi, Dario Cattaneo, and Norberto Perico

### BASIC RESEARCH

**1463 ★ Glomerular Endothelial Cells Form Diaphragms during Development and Pathologic Conditions**

Koichiro Ichimura, Radu V. Stan, Hidetake Kurihara, and Tatsuo Sakai

- See related editorial by Kriz (pp. 1439–1440).

**1472 High Perfusion Pressure Accelerates Renal Injury in Salt-Sensitive Hypertension**

Takefumi Mori, Aaron Polichnowski, Padden Glocka, Mary Kaldunski, Yusuke Ohsaki, Mingyu Liang, and Allen W. Cowley, Jr.

**1483 Impaired Immune Responses and Antigen-Specific Memory CD4<sup>+</sup> T Cells in Hemodialysis Patients**

Nicolle Helena Renier Litjens, Martin Huisman, Marinus van den Dorpel, and Michiel Gerardus Henricus Betjes

**1491 Maternal Environment Interacts with Modifier Genes to Influence Progression of Nephrotic Syndrome**

Julien Ratelade, Tiphaine Aguirre Lavin, Andrea Onetti Muda, Ludivine Morisset, Géraldine Mollet, Olivia Boyer, Deborah S. Chen, Anna Henger, Matthias Kretzler, Norbert Hubner, Clotilde Théry, Marie-Claire Gubler, Xavier Montagutelli, Corinne Antignac, and Ernie L. Esquivel

**1500 Hemoglobin Is Expressed by Mesangial Cells and Reduces Oxidant Stress**

Hiroshi Nishi, Reiko Inagi, Hideki Kato, Masayuki Tanemoto, Ichiro Kojima, Daisuke Son, Toshiro Fujita, and Masaomi Nangaku

- See related editorial by Haase (pp. 1440–1441).

**1509 ★ Vitamin D Receptor Activators Can Protect against Vascular Calcification**

Suresh Mathew, Richard J. Lund, Lala R. Chaudhary, Theresa Geurs, and Keith A. Hruska

**1520 Differential Effects of Rapamycin in Anti-GBM Glomerulonephritis**

Kathrin Hochegger, Gerhard L. Jansky, Afschin Soleiman, Anna M. Wolf, Andrea Tagwerker, Christoph Seger, Andrea Griesmacher, Gert Mayer, and Alexander R. Rosenkranz

**1530 Mechanism of Urinary Calcium Regulation by Urinary Magnesium and pH**

Olivier Bonny, Adam Rubin, Chou-Long Huang, William H. Frawley, Charles Y.C. Pak, and Orson W. Moe

**1538 ★ Apoptosis of the Thick Ascending Limb Results in Acute Kidney Injury**

Manakan B. Srichai, Chuanming Hao, Linda Davis, Anastasia Golovin, Min Zhao, Gilbert Moeckel, Steve Dunn, Nada Bulus, Raymond C. Harris, Roy Zent, and Matthew D. Breyer

**1547 Characterization of the Sodium/Hydrogen Exchanger NHA2**

Daniel G. Fuster, Jianning Zhang, Mingjun Shi, I. Alexandru Bobulescu, Stefan Andersson, and Orson W. Moe

**CLINICAL EPIDEMIOLOGY**

**1557 ★ Metabolic Control Improves Long-Term Renal Allograft and Patient Survival in Type 1 Diabetes**

Christian Morath, Martin Zeier, Bernd Döhler, Jan Schmidt, Peter P. Nawroth, and Gerhard Opelz

**1564 ★ Increased Risk of CKD among Type 2 Diabetics with Nonalcoholic Fatty Liver Disease**

Giovanni Targher, Michel Chonchol, Lorenzo Bertolini, Stefano Rodella, Luciano Zenari, Giuseppe Lippi, Massimo Franchini, Giacomo Zoppini, and Michele Muggeo

**CLINICAL RESEARCH**

**1571 Epithelial-to-Mesenchymal Transition in Early Transplant Tubulointerstitial Damage**

Matthew J. Vitalone, Philip J. O'Connell, Elvira Jimenez-Vera, Aysen Yuksel, Moses Wavamunno, Caroline L.-S. Fung, Jeremy R. Chapman, and Brian J. Nankivell

**1584 Early Epithelial Phenotypic Changes Predict Graft Fibrosis**

Alexandre Hertig, Dany Anglicheau, Jérôme Verine, Nicolas Pallet, Maxime Touzot, Pierre-Yves Ancel, Laurent Mesnard, Nicole Brousse, Edith Baugey, Denis Glotz, Christophe Legendre, Eric Rondeau, and Yi-Chun Xu-Dubois

**1592 Pitfalls of Measuring Total Blood Calcium in Patients with CKD**

Cédric Gauci, Olivier Moranne, Bruno Fouqueray, Renaud de la Faille, Gérard Maruani, Jean-Philippe Haymann, Christian Jacquot, Jean-Jacques Boffa, Martin Flamant, Jérôme Rossert, Pablo Urena, Bénédicte Stengel, Jean-Claude Souberbielle, Marc Froissart, and Pascal Houillier, on behalf of the NephroTest Study Group

**1599 Ferumoxylol for Treating Iron Deficiency Anemia in CKD**

Bruce S. Spinowitz, Annamaria T. Kausz, Jovanna Baptista, Sylvia D. Noble, Renuka Sothinathan, Marializa V. Bernardo, Louis Brenner, and Brian J. G. Pereira

**1606 Association of a CYP4A11 Variant and Blood Pressure in Black Men**

James V. Gainer, Michael S. Lipkowitz, Chang Yu, Michael R. Waterman, Elliott P. Dawson, Jorge H. Capdevila, Nancy J. Brown, and the AASK Study Group

**1613 ★ Association of Oral Calcitriol with Improved Survival in Nondialyzed CKD**

Abigail B. Shoben, Kyle D. Rudser, Ian H. de Boer, Bessie Young, and Bryan Kestenbaum

- See related editorial by Wolf (pp. 1442–1443).