

**This Month's Highlights**

**UP FRONT MATTERS**

**Editorials**

- 2919 Prorenin Receptor, a Necessary Component in Urine Concentration Mechanism**  
Boye L. Jensen  
• See related article by Wang et al. (pp. 3022–3034).
- 2921 Sex Differences and Renal Protection: Keeping in Touch with Your Feminine Side**  
Vesna D. Garovic and Phyllis August  
• See related articles by Inada et al. (pp. 3035–3050); and Seppi et al. (pp. 3051–3062).
- 2924 ESRD Payment Reform: First Do No Harm**  
Jenny I. Shen and Keith C. Norris  
• See related article by Chertow et al. (pp. 3129–3138).
- 2926 Proton Pump Inhibitors and CKD**  
Dennis G. Moledina and Mark A. Perazella  
• See related article by Xie et al. (pp. 3153–3163).
- Brief Reviews**
- 2929 Current and Emerging Therapies for Lupus Nephritis**  
Samir V. Parikh and Brad H. Rovin
- 2940 Gene Editing: Powerful New Tools for Nephrology Research and Therapy**  
Ayano Miyagi, Aiwu Lu, and Benjamin D. Humphreys
- 2948 Pragmatic Clinical Trials in CKD: Opportunities and Challenges**  
Ian H. de Boer, Csaba P. Kovesdy, Sankar D. Navaneethan, Carmen A. Peralta, Delphine S. Tuot, Miguel A. Vazquez, and Deidra C. Crews, for the American Society of Nephrology Chronic Kidney Disease Advisory Group
- 2955 Pragmatic Trials in Maintenance Dialysis: Perspectives from the Kidney Health Initiative**  
Laura M. Dember, Patrick Archdeacon, Mahesh Krishnan, Eduardo Lacson Jr., Shari M. Ling, Prabir Roy-Chaudhury, Kimberly A. Smith, and Michael F. Flessner

**BRIEF COMMUNICATIONS**

- 2965 Developmental Origins for Kidney Disease Due to *Shroom3* Deficiency**  
Hadiseh Khalili, Alexandra Sull, Sanjay Sarin, Felix J. Boivin, Rami Halabi, Bruno Svajger, Aihua Li, Valerie Wenche Cui, Thomas Drysdale, and Darren Bridgewater
- 2974 Mesencephalic Astrocyte–Derived Neurotrophic Factor as a Urine Biomarker for Endoplasmic Reticulum Stress–Related Kidney Diseases**  
Yeawon Kim, Heedoo Lee, Scott R. Manson, Maria Lindahl, Bradley Evans, Jeffrey H. Miner, Fumihiko Urano, and Ying Maggie Chen
- 2983 ★The Uromodulin Gene Locus Shows Evidence of Pathogen Adaptation through Human Evolution**  
Silvia Ghirotto, Francesca Tassi, Guido Barbuiani, Linda Pattini, Caroline Hayward, Peter Vollenweider, Murielle Bochud, Luca Rampoldi, and Olivier Devuyst

**BASIC RESEARCH**

- 2997 ★Nephron-Specific Deletion of Circadian Clock Gene *Bmal1* Alters the Plasma and Renal Metabolome and Impairs Drug Disposition**  
Svetlana Nikolaeva, Camille Ansermet, Gabriel Centeno, Sylvain Pradervand, Vincent Bize, David Mordasini, Hugues Henry, Robert Koesters, Marc Maillard, Olivier Bonny, Natsuko Tokonami, and Dmitri Firsov
- 3006 MicroRNA-196a/b Mitigate Renal Fibrosis by Targeting TGF- $\beta$  Receptor 2**  
Jiao Meng, Limin Li, Yue Zhao, Zhen Zhou, Mingchao Zhang, Donghai Li, Chen-Yu Zhang, Ke Zen, and Zhihong Liu
- 3022 Antidiuretic Action of Collecting Duct (Pro)Renin Receptor Downstream of Vasopressin and PGE<sub>2</sub> Receptor EP<sub>4</sub>**  
Fei Wang, Xiaohan Lu, Kexin Peng, Hui Fang, Li Zhou, Jiahui Su, Adam Nau, Kevin T. Yang, Atsuhiko Ichihara, Aihua Lu, Shu-Feng Zhou, and Tianxin Yang  
• See related editorial by Jensen (pp. 2919–2921).

**3035 Adjusting the 17 $\beta$ -Estradiol-to-Androgen Ratio Ameliorates Diabetic Nephropathy**

Akari Inada, Oogi Inada, Nobuharu L. Fujii, Seiho Nagafuchi, Hitoshi Katsuta, Yohichi Yasunami, Takeshi Matsubara, Hidenori Arai, Atsushi Fukatsu, and Yo-ichi Nabeshima

- See related editorial by Garovic and August (pp. 2921–2924).

**3051 Sex Differences in Renal Proximal Tubular Cell Homeostasis**

Thomas Seppi, Sinikka Prajczner, Maria-Magdalena Dörler, Oliver Eiter, Daniel Hekl, Meinhard Nevinny-Stickel, Iraida Skvortsova, Gerhard Gstraunthaler, Peter Lukas, and Judith Lechner

- See related editorial by Garovic and August (pp. 2921–2924).

**3063 Blockade of Orai1 Store-Operated Calcium Entry Protects against Renal Fibrosis**

Xiaoyi Mai, Jinyan Shang, Sijia Liang, Beixin Yu, Jiani Yuan, Yu Lin, Renfei Luo, Feiran Zhang, Yingying Liu, Xiaofei Lv, Chunling Li, Xinling Liang, Weidong Wang, and Jiaguo Zhou

**3079 Proteomics of Urinary Vesicles Links Plakins and Complement to Polycystic Kidney Disease**

Mahdi Salih, Jeroen A. Demmers, Karel Bezstarosti, Wouter N. Leonhard, Monique Losekoot, Cees van Kooten, Ron T. Gansevoort, Dorien J.M. Peters, Robert Zietse, and Ewout J. Hoom, on behalf of the DIPAK Consortium

**3093 ★ Validation of a Three-Dimensional Method for Counting and Sizing Podocytes in Whole Glomeruli**

Victor G. Puelles, James W. van der Wolde, Keith E. Schulze, Kieran M. Short, Milagros N. Wong, Jonathan G. Bensley, Luise A. Cullen-McEwen, Georgina Caruana, Stacey N. Hokke, Jinhua Li, Stephen D. Firth, Ian S. Harper, David J. Nikolic-Paterson, and John F. Bertram

**3105 EGF Receptor Inhibition by Erlotinib Increases Aquaporin 2-Mediated Renal Water Reabsorption**

Pui W. Cheung, Naohiro Nomura, Anil V. Nair, Nutthapoom Pathomthongtaweetchai, Lars Ueberdiek, Hua A. Jenny Lu, Dennis Brown, and Richard Bouley

**3117 YAP/TAZ Are Mechanoregulators of TGF- $\beta$ -Smad Signaling and Renal Fibrogenesis**

Stephen G. Szeto, Masahiro Narimatsu, Mingliang Lu, Xiaolin He, Ahmad M. Sidiqi, Monica F. Tolosa, Lauren Chan, Krystale De Freitas, Janne Folke Bialik, Syamantak Majumder, Stellar Boo, Boris Hinz, Qinghong Dan, Andrew Advani, Rohan John, Jeffrey L. Wrana, Andras Kapus, and Darren A. Yuen

## CLINICAL EPIDEMIOLOGY

**3129 Epoetin Alfa and Outcomes in Dialysis amid Regulatory and Payment Reform**

Glenn M. Chertow, Jiannong Liu, Keri L. Monda, David T. Gilbertson, M. Alan Brookhart, Anne C. Beaubrun, Wolfgang C. Winkelmayr, Allan Pollock, Charles A. Herzog, Akhtar Ashfaq, Til Sturmer, Kenneth J. Rothman, Brian D. Bradbury, and Allan J. Collins

- See related editorial by Shen and Norris (pp. 2924–2926).

**3140 Combined Effects of *GSTM1* Null Allele and *APOL1* Renal Risk Alleles in CKD Progression in the African American Study of Kidney Disease and Hypertension Trial**

Gabor Bodonyi-Kovacs, Jennie Z. Ma, Jamison Chang, Michael S. Lipkowitz, Jeffrey B. Kopp, Cheryl Ann Winkler, and Thu H. Le

**3153 ★ Proton Pump Inhibitors and Risk of Incident CKD and Progression to ESRD**

Yan Xie, Benjamin Bowe, Tingting Li, Hong Xian, Sumitra Balasubramanian, and Ziyad Al-Aly

- See related editorial by Moledina and Perazella (pp. 2926–2928).

## CLINICAL RESEARCH

**3165 ★ Predicting Individual Renal Allograft Outcomes Using Risk Models with 1-Year Surveillance Biopsy and Alloantibody Data**

Manuel Moreno Gonzales, Andrew Bentall, Walter K. Kremers, Mark D. Stegall, and Richard Borrows

**3175 Polymorphisms in  $\alpha$ -Defensin-Encoding *DEFA1A3* Associate with Urinary Tract Infection Risk in Children with Vesicoureteral Reflux**

Andrew L. Schwaderer, Huanyu Wang, SungHwan Kim, Jennifer M. Kline, Dong Liang, Pat D. Brophy, Kirk M. McHugh, George C. Tseng, Vijay Saxena, Evan Barr-Beare, Keith R. Pierce, Nader Shaikh, J. Robert Manak, Daniel M. Cohen, Brian Becknell, John D. Spencer, Peter B. Baker, Chack-Yung Yu, and David S. Hains

**3187 Fine Mapping Implicates a Deletion of *CFHR1* and *CFHR3* in Protection from IgA Nephropathy in Han Chinese**

Jingyuan Xie, Krzysztof Kiryluk, Yifu Li, Nikol Mladkova, Li Zhu, Ping Hou, Hong Ren, Weiming Wang, Hong Zhang, Nan Chen, and Ali G. Gharavi

**3195** **Combined Assessment of Phospholipase A2 Receptor Autoantibodies and Glomerular Deposits in Membranous Nephropathy**  
Hua-Zhang Qin, Ming-Chao Zhang, Wei-Bo Le, Qiang Ren, Da-Cheng Chen, Cai-Hong Zeng, Lei Liu, Ke Zuo, Feng Xu, and Zhi-Hong Liu

**3204** ★ **Plasma Levels of Risk-Variant APOL1 Do Not Associate with Renal Disease in a Population-Based Cohort**  
Julia Kozlitina, Haihong Zhou, Patricia N. Brown, Rory J. Rohm, Yi Pan, Gulesi Ayanoglu, Xiaoyan Du, Eric Rimmer, Dermot F. Reilly, Thomas P. Roddy, Doris F. Cully, Thomas F. Vogt, Daniel Blom, and Maarten Hoek

**3220** **Autoantibodies Targeting a Collecting Duct-Specific Water Channel in Tubulointerstitial Nephritis**  
Nils Landegren, Mina Pourmousa Lindberg, Jakob Skov, Åsa Hallgren, Daniel Eriksson, Trine Lisberg Toft-Bertelsen, Nanna MacAulay, Eva Hagforsen, Anne Räisänen-Sokolowski, Heikki Saha, Thomas Nilsson, Gunnel Nordmark, Sophie Ohlsson, Jan Gustafsson, Eystein S. Husebye, Erik Larsson, Mark S. Anderson, Jaakko Perheentupa, Fredrik Rorsman, Robert A. Fenton, and Olle Kämpe