

This Month's Highlights

UP FRONT MATTERS

Editorials

2543 Receptor Protein Tyrosine Phosphatase γ , CO₂ Sensing in Proximal Tubule and Acid Base Homeostasis

Manoocher Soleimani

• See related article by Zhou et al. (pp. 2616–2621).

2545 Glucocorticoid-Regulated Kinase: Linking Azotemia and Muscle Wasting in CKD

Madhav C. Menon and John Cijiang He

• See related article by Luo et al. (pp. 2797–2808).

2547 Challenges in Rare Variant Association Studies for Complex Kidney Traits: CFHR5 and IgA Nephropathy

Krzysztof Kiryluk

• See related article by Zhai et al. (pp. 2894–2905).

2551 The Search for a Biomarker of Relapse in ANCA-Associated Vasculitis

Meghan E. Free and Ronald J. Falk

• See related article by O'Reilly et al. (pp. 2906–2916).

Brief Reviews

2554 Coordinated Control of ENaC and Na⁺,K⁺-ATPase in Renal Collecting Duct

Eric Feraille and Eva Dizin

2564 Of Inflammasomes and Alarmins: IL-1 β and IL-1 α in Kidney Disease

Hans-Joachim Anders

2576 Social Determinants of Racial Disparities in CKD

Jenna M. Norton, Marva M. Moxey-Mims, Paul W. Eggers, Andrew S. Narva, Robert A. Star, Paul L. Kimmel, and Griffin P. Rodgers

BRIEF COMMUNICATIONS

2597 MicroRNA-23b Targets Ras GTPase-Activating Protein SH3 Domain-Binding Protein 2 to Alleviate Fibrosis and Albuminuria in Diabetic Nephropathy

Binghai Zhao, Hongzhi Li, Jieting Liu, Pengfei Han, Chunlei Zhang, He Bai, Xiaohuan Yuan, Xiaoli Wang, Li Li, Hongchuan Ma, Xiudong Jin, and Yanhui Chu

2609 Recombinant N-Terminal Slit2 Inhibits TGF- β -Induced Fibroblast Activation and Renal Fibrosis

Darren A. Yuen, Yi-Wei Huang, Guang-Ying Liu, Sajedabanu Patel, Fei Fang, Joyce Zhou, Kerri Thai, Ahmad Sidiqi, Stephen G. Szeto, Lauren Chan, Mingliang Lu, Xiaolin He, Rohan John, Richard E. Gilbert, James W. Scholey, and Lisa A. Robinson

2616 Role of Receptor Protein Tyrosine Phosphatase γ in Sensing Extracellular CO₂ and HCO₃⁻

Yuehan Zhou, Lara A. Skelton, Lumei Xu, Margaret P. Chandler, Jessica M. Berthiaume, and Walter F. Boron

• See related editorial by Soleimani (pp. 2543–2545).

2622 IgA1 Protease Treatment Reverses Mesangial Deposits and Hematuria in a Model of IgA Nephropathy

Sebastian M. Lechner, Lilia Abbad, Erwan Boedec, Christina Papista, Marie-Bénédicte Le Stang, Christelle Moal, Julien Maillard, Agnès Jamin, Julie Bex-Coudrat, Yong Wang, Aiqun Li, Paolo G.V. Martini, Renato C. Monteiro, and Laureline Berthelot

BASIC RESEARCH

2631 Inhibition of EGF Receptor Blocks the Development and Progression of Peritoneal Fibrosis

Li Wang, Na Liu, Chongxiang Xiong, Liuqing Xu, Yingfeng Shi, Andong Qiu, Xiujuan Zang, Haiping Mao, and Shougang Zhuang

- 2645 Far Upstream Element-Binding Protein 1 Binds the 3' Untranslated Region of PKD2 and Suppresses Its Translation**
Wang Zheng, Fan Shen, Ruikun Hu, Birbickram Roy, JungWoo Yang, Qian Wang, Fan Zhang, Jennifer C. King, Consolato Sergi, Song-Mei Liu, Emmanuelle Cordat, Jingfeng Tang, Ying Cao, Declan Ali, and Xing-Zhen Chen
- 2658 Tubular Epithelial NF- κ B Activity Regulates Ischemic AKI**
Lajos Markó, Emilia Vigolo, Christian Hinze, Joon-Keun Park, Giulietta Roël, András Balogh, Mira Choi, Anne Wübken, Jimmi Cording, Ingolf E. Blasig, Friedrich C. Luft, Claus Scheidereit, Kai M. Schmidt-Ott, Ruth Schmidt-Ullrich, and Dominik N. Müller
- 2670 A Novel Extrinsic Pathway for the Unfolded Protein Response in the Kidney**
Iadh Mami, Quentin Tavernier, Nicolas Bouvier, Rim Aboukamis, Geoffroy Desbuissons, Marion Rabant, Virginie Poindessous, Pierre Laurent-Puig, Philippe Beaune, Pierre-Louis Tharaux, Eric Thervet, Eric Chevet, Dany Anglicheau, and Nicolas Pallet
- 2685 Cathepsin D in Podocytes Is Important in the Pathogenesis of Proteinuria and CKD**
Kanae Yamamoto-Nonaka, Masato Koike, Katsuhiko Asanuma, Miyuki Takagi, Juan Alejandro Oliva Trejo, Takuto Seki, Teruo Hidaka, Koichiro Ichimura, Tatsuo Sakai, Norihiro Tada, Takashi Ueno, Yasuo Uchiyama, and Yasuhiko Tomino
- 2702 Distinct Requirements for Vacuolar Protein Sorting 34 Downstream Effector Phosphatidylinositol 3-Phosphate 5-Kinase in Podocytes Versus Proximal Tubular Cells**
Madhusudan Venkatareddy, Rakesh Verma, Anne Kalinowski, Sanjeevkumar R. Patel, Assia Shisheva, and Puneet Garg
- 2720 Renal Handling of Circulating and Renal-Synthesized Hepcidin and Its Protective Effects against Hemoglobin-Mediated Kidney Injury**
Rachel P.L. van Swelm, Jack F.M. Wetzels, Vivienne G.M. Verweij, Coby M.M. Laarakkers, Jeanne C.L.M. Pertjjs, Jenny van der Wijst, Frank Thévenod, Rosalinde Masereeuw, and Dorine W. Swinkels
- 2733 ★Dynammin-Related Protein 1 Deficiency Improves Mitochondrial Fitness and Protects against Progression of Diabetic Nephropathy**
Bernard A. Ayanga, Shawn S. Badal, Yin Wang, Daniel L. Galvan, Benny H. Chang, Paul T. Schumacker, and Farhad R. Danesh
- 2748 IgA Structure Variations Associate with Immune Stimulations and IgA Mesangial Deposition**
Zeliha Oruc, Christelle Oblet, Ahmed Boumediene, Anne Druilhe, Virginie Pascal, Elisabeth Le Rumeur, Armelle Cuvillier, Chahrazed El Hamel, Sandrine Lecardeur, Tomas Leanderson, Willy Morelle, Jocelyne Demengeot, Jean-Claude Aldigier, and Michel Cogné
- 2762 ★Urine of Preterm Neonates as a Novel Source of Kidney Progenitor Cells**
Fanny Oliveira Arcolino, Silvia Zia, Katharina Held, Elli Papadimitriou, Koen Theunis, Benedetta Bussolati, Anke Raaijmakers, Karel Allegaert, Thierry Voet, Jan Deprest, Joris Vriens, Jaan Toelen, Lambertus van den Heuvel, and Elena Levtchenko
- 2771 TRPC6 G757D Loss-of-Function Mutation Associates with FSGS**
Marc Riehle, Anja K. Büscher, Björn-Oliver Gohlke, Mario Kaßmann, Maria Kolatsi-Joannou, Jan H. Bräsen, Mato Nagel, Jan U. Becker, Paul Winyard, Peter F. Hoyer, Robert Preissner, Dietmar Krautwurst, Maik Gollasch, Stefanie Weber, and Christian Harteneck
- 2784 ★MicroRNA-489 Induction by Hypoxia-Inducible Factor-1 Protects against Ischemic Kidney Injury**
Qingqing Wei, Yong Liu, Pengyuan Liu, Jieliu Hao, Mingyu Liang, Qing-sheng Mi, Jian-Kang Chen, and Zheng Dong
- 2797 Serum Glucocorticoid-Regulated Kinase 1 Blocks CKD-Induced Muscle Wasting Via Inactivation of FoxO3a and Smad2/3**
Jinlong Luo, Anlin Liang, Ming Liang, Ruohan Xia, Yasmeen Rizvi, Yun Wang, and Jizhong Cheng
• See related editorial by Menon and He (pp. 2545–2547).
- 2810 Inorganic Phosphate Activates the AKT/mTORC1 Pathway and Shortens the Life Span of an α -Klotho-Deficient Model**
Masanobu Kawai, Saori Kinoshita, Keiichi Ozono, and Toshimi Michigami
- CLINICAL EPIDEMIOLOGY**
- 2825 The Risk of Major Hemorrhage with CKD**
Amber O. Molnar, Sarah E. Bota, Amit X. Garg, Ziv Harel, Ngan Lam, Eric McArthur, Gihad Nesrallah, Jeffrey Perl, and Manish M. Sood
- 2833 Re-Examining Risk of Repeated HLA Mismatch in Kidney Transplantation**
Kathryn J. Tinckam, Caren Rose, Sundaram Hariharan, and John Gill

2842 Race, APOL1 Risk, and eGFR Decline in the General Population
Morgan E. Grams, Casey M. Rebholz, Yuan Chen, Andreea M. Rawlings, Michelle M. Estrella, Elizabeth Selvin, Lawrence J. Appel, Adrienne Tin, and Josef Coresh

2851 ★Candidate Surrogate End Points for ESRD after AKI
Morgan E. Grams, Yingying Sang, Josef Coresh, Shoshana H. Ballew, Kunihiko Matsushita, Andrew S. Levey, Tom H. Greene, Miklos Z. Molnar, Zoltan Szabo, Kamyar Kalantar-Zadeh, and Csaba P. Kovcsdy

CLINICAL RESEARCH

2861 Impaired Glucose and Insulin Homeostasis in Moderate-Severe CKD
Ian H. de Boer, Leila Zelnick, Maryam Afkarian, Ernest Ayers, Laura Curtin, Jonathan Himmelfarb, T. Alp Ikizler, Steven E. Kahn, Bryan Kestenbaum, and Kristina Utzschneider

2872 ★Predicted Mutation Strength of Nontruncating PKD1 Mutations Aids Genotype-Phenotype Correlations in Autosomal Dominant Polycystic Kidney Disease
Christina M. Heyer, Jamie L. Sundsbak, Kaleab Z. Abebe, Arlene B. Chapman, Vicente E. Torres, Jared J. Grantham, Kyongtae T. Bae, Robert W. Schrier, Ronald D. Perrone, William E. Braun, Theodore I. Steinman, Michal Mrug, Alan S.L. Yu, Godela Brosnahan, Katharina Hopp, Maria V. Irazabal, William M. Bennett, Michael F.

Flessner, Charity G. Moore, Douglas Landsittel, and Peter C. Harris and for the HALT PKD and CRISP Investigators

2885 ★Renal Function Profile in White Kidney Donors: The First 4 Decades
Hassan N. Ibrahim, Robert N. Foley, Scott A. Reule, Richard Spong, Aleksandra Kukla, Naim Issa, Danielle M. Berglund, Gretchen K. Sieger, and Arthur J. Matas

2894 Rare Variants in the Complement Factor H-Related Protein 5 Gene Contribute to Genetic Susceptibility to IgA Nephropathy
Ya-Ling Zhai, Si-Jun Meng, Li Zhu, Su-Fang Shi, Su-Xia Wang, Li-Jun Liu, Ji-Cheng Lv, Feng Yu, Ming-Hui Zhao, and Hong Zhang
• See related editorial by Kiryluk (pp. 2547–2551).

2906 Urinary Soluble CD163 in Active Renal Vasculitis
Vincent P. O'Reilly, Limy Wong, Claire Kennedy, Louise A. Elliot, Shane O'Meachair, Alice Marie Coughlan, Eoin C. O'Brien, Michelle M. Ryan, Diego Sandoval, Emma Connolly, Gerjan J. Dekkema, Jiaying Lau, Wayel H. Abdulahad, Jan-Stephan F. Sanders, Peter Heeringa, Colm Buckley, Cathal O'Brien, Stephen Finn, Clemens D. Cohen, Maja T. Lindemeyer, Fionnuala B. Hickey, Paul V. O'Hara, Conleth Feighery, Sarah M. Moran, George Mellotte, Michael R. Clarkson, Anthony J. Dorman, Patrick T. Murray, and Mark A. Little
• See related editorial by Free and Falk (pp. 2551–2553).

2917 ERRATA