

JASN[®]

JOURNAL OF THE AMERICAN SOCIETY OF NEPHROLOGY

April 2021 • Vol. 32 • No. 4

This Month's Highlights

UP FRONT MATTERS

Editorials

- 767 **Automated Quantification of Chronic Changes in the Kidney Biopsy: Another Step in the Right Direction**

Jeffrey B. Hodgin and Laura H. Mariani

• See related article by Ginley et al. (pp. 837–850).

- 768 **Me Or Your Own Eyes: RNA-Seq and the Kidney**

David H. Ellison

• See related articles by Chen et al. (pp. 886–896) and (pp. 897–912), respectively.

- 771 **QALYs, DALYs and Now PALYs: Strengthening the Argument for Prevention of CKD**

Mark Canney and Adeera Levin

• See related article by Savira et al. (pp. 938–949).

Perspective

- 774 **Passage of the Comprehensive Immunosuppressive Drug Coverage for Kidney Transplant Patients Act—a Chance to Celebrate and Reflect**

John S. Gill, Richard N. Formica Jr., and Barbara Murphy

Review

- 777 **Management of Obesity in Adults with CKD**
Allon N. Friedman, Lee M. Kaplan, Carel W. le Roux, and Philip R. Schauer

RESEARCH LETTER

- 791 **Comparative Analysis of SARS-CoV-2 Reproduction Rates in the Dialysis and General Populations**

Alhaji Cherif, Joanna L. Willetts, Len Usvyat, Yuedong Wang, and Peter Kotanko

RAPID COMMUNICATION

- 795 ★ **A Novel Soluble ACE2 Variant with Prolonged Duration of Action Neutralizes SARS-CoV-2 Infection in Human Kidney Organoids**

Jan Wysocki, Minghao Ye, Luise Hassler, Ashwani Kumar Gupta, Yuguo Wang, Vlad Nicolescu, Glenn Randall, Jason A. Wertheim, and Daniel Batlle

BASIC RESEARCH

- 805 **Copy Number Variant Analysis and Genome-wide Association Study Identify Loci with Large Effect for Vesicoureteral Reflux**

Miguel Verbitsky, Priya Krithivasan, Ekaterina Batourina, Atlas Khan, Sarah E. Graham, Maddalena Marasà, Hyunwoo Kim, Tze Y. Lim, Patricia L. Weng, Elena Sánchez-Rodríguez, Adele Mitrotti, Dina F. Ahram, Francesca Zanoni, David A. Fasel, Rik Westland, Matthew G. Sampson, Jun Y. Zhang, Monica Bodria, Byum Hee Kil, Shirlee Shril, Loreto Gesualdo, Fabio Torri, Francesco Scolari, Claudia Izzi, Joanna A.E. van Wijk, Marijan Saraga, Domenico Santoro, Giovanni Conti, David E. Barton, Mark G. Dobson, Prem Puri, Susan L. Furth, Bradley A. Warady, Isabella Pisani, Enrico Fiaccadori, Landino Allegri, Maria Ludovica Degl'Innocenti, Giorgio Piaggio, Shumyle Alam, Maddalena Gigante, Gianluigi Zaza, Pasquale Esposito, Fangming Lin, Ana Cristina Simões-e-Silva, Andrzej Brodziejewicz, Dorota Drozd, Katarzyna Zachwieja, Monika Miklaszewska, Maria Szczepanska, Piotr Adamczyk, Marcin Tkaczyk, Daria Tomczyk, Przemyslaw Sikora, Małgorzata Mizerska-Wasiak, Grazyna Krzemien, Agnieszka Szmigielska, Marcin Zaniew, Vladimir J. Lozanovski, Zoran Gucev, Iuliana Ionita-Laza, Ian B. Stanaway, David R. Crosslin, Craig S. Wong, Friedhelm Hildebrandt, Jonathan Barasch, Eimear E. Kenny, Ruth J.F. Loos, Brynn Levy, Gian Marco Ghiggeri, Hakon Hakonarson, Anna Latos-Bieleńska, Anna Materna-Kirylyuk, John M. Darlow, Velibor Tasic, Cristen Willer, Krzysztof Kiryluk, Simone Sanna-Cherchi, Cathy L. Mendelsohn, and Ali G. Gharavi

Red star ★ indicates articles that are features in This Month's Highlights.

- 822** **mtor Haploinsufficiency Ameliorates Renal Cysts and Cilia Abnormality in Adult Zebrafish *tmem67* Mutants**
Ping Zhu, Qi Qiu, Peter C. Harris, Xiaolei Xu, and Xueying Lin
- 837** **★Automated Computational Detection of Interstitial Fibrosis, Tubular Atrophy, and Glomerulosclerosis**
Brandon Ginley, Kuang-Yu Jen, Seung Seok Han, Luís Rodrigues, Sanjay Jain, Agnes B. Fogo, Jonathan Zuckerman, Vighnesh Walavalkar, Jeffrey C. Miecznikowski, Yumeng Wen, Felicia Yen, Donghwan Yun, Kyung Chul Moon, Avi Rosenberg, Chirag Parikh, and Pinaki Sarder
• See related editorial by Hodgin and Mariani (pp. 767–768).
- 852** **NBCn1 Increases NH_4^+ Reabsorption Across Thick Ascending Limbs, the Capacity for Urinary NH_4^+ Excretion, and Early Recovery from Metabolic Acidosis**
Jeppe S. M. Olsen, Samuel Svendsen, Peder Berg, Vibeke S. Dam, Mads V. Sorensen, Vladimir V. Matchkov, Jens Leipziger, and Ebbe Boedtkjer
- 866** **$1\alpha,25\text{-Dihydroxyvitamin D}_3$ Encapsulated in Nanoparticles Prevents Venous Neointimal Hyperplasia and Stenosis in Porcine Arteriovenous Fistulas**
Avishek K. Singh, Chuanqi Cai, Sreenivasulu Kilari, Chenglei Zhao, Michael L. Simeon, Edwin Takahashi, Elazer R. Edelman, Hyunjoon (Joon) Kong, Thanila Macedo, Ravinder J. Singh, Matthew W. Urban, Rajiv Kumar, and Sanjay Misra
- 886** **Targeted Single-Cell RNA-seq Identifies Minority Cell Types of Kidney Distal Nephron**
Lihe Chen, Chun-Lin Chou, and Mark A. Knepper
• See related editorial by Ellison (pp. 768–771) and article by Chen et al. (pp. 897–912), respectively.
- 897** **★A Comprehensive Map of mRNAs and Their Isoforms across All 14 Renal Tubule Segments of Mouse**
Lihe Chen, Chun-Lin Chou, and Mark A. Knepper
• See related editorial by Ellison (pp. 768–771) and article by Chen et al. (pp. 886–896), respectively.
- CLINICAL EPIDEMIOLOGY**
- 913** **★Failure to Advance Access to Kidney Transplantation over Two Decades in the United States**
Jesse D. Schold, Sumit Mohan, Anne Huml, Laura D. Buccini, John R. Sedor, Joshua J. Augustine, and Emilio D. Poggio
- 927** **Cardiovascular Risk Based on ASCVD and KDIGO Categories in Chinese Adults: A Nationwide, Population-Based, Prospective Cohort Study**
Yu Xu, Mian Li, Guijun Qin, Jieli Lu, Li Yan, Min Xu, Tiange Wang, Zhiyun Zhao, Meng Dai, Di Zhang, Qin Wan, Yanan Huo, Lulu Chen, Lixin Shi, Ruying Hu, Xulei Tang, Qing Su, Xuefeng Yu, Yingfen Qin, Gang Chen, Zhengnan Gao, Guixia Wang, Feixia Shen, Zuojie Luo, Li Chen, Yuhong Chen, Yinfei Zhang, Chao Liu, Youmin Wang, Shengli Wu, Tao Yang, Qiang Li, Yufang Bi, Jiajun Zhao, Yiming Mu, Weiqing Wang, and Guang Ning, for the China Cardiometabolic Disease and Cancer Cohort (4C) Study Group
- 938** **The Preventable Productivity Burden of Kidney Disease in Australia**
Feby Savira, Zanfina Ademi, Bing H. Wang, Andrew R. Kompa, Alice J. Owen, Danny Liew, and Ella Zomer
• See related editorial by Canney and Levin (pp. 771–773).
- 950** **★Laxative Use and Risk of Dyskalemia in Patients with Advanced CKD Transitioning to Dialysis**
Keiichi Sumida, Ankur A. Dashputre, Praveen K. Potukuchi, Fridtjof Thomas, Yoshitsugu Obi, Miklos Z. Molnar, Justin D. Gatwood, Elani Streja, Kamyar Kalantar-Zadeh, and Csaba P. Kovcsdy
- CLINICAL RESEARCH**
- 961** **Risks of AKI and Major Adverse Clinical Outcomes in Patients with Severe Acute Respiratory Syndrome or Coronavirus Disease 2019**
Jeremy Yuen-Chun Teoh, Terry Cheuk-Fung Yip, Grace Chung-Yan Lui, Vincent Wai-Sun Wong, Viola Chi-Ying Chow, Tracy Hang-Yee Ho, Timothy Chun-Man Li, Yee-Kit Tse, Peter Ka-Fung Chiu, Chi-Fai Ng, David Shu-Cheong Hui, Henry Lik-Yuen Chan, Cheuk-Chun Szeto, and Grace Lai-Hung Wong
- 972** **Rituximab or Cyclophosphamide in the Treatment of Membranous Nephropathy: The RI-CYCLO Randomized Trial**
Francesco Scolari, Elisa Delbarba, Domenico Santoro, Loreto Gesualdo, Antonello Pani, Nadia Dallera, Laila-Yasmin Mani, Marisa Santostefano, Sandro Feriozzi, Marco Quaglia, Giuliano Boscutti, Angelo Ferrantelli, Carmelita Marcantoni, Patrizia Passerini, Riccardo Magistroni, Federico Alberici, Gian Marco Ghiggeri, Claudio Ponticelli, and Pietro Ravani, for the RI-CYCLO Investigators

983 Kidney Function after Treatment for Childhood Cancer: A Report from the St. Jude Lifetime Cohort Study

Daniel M. Green, Mingjuan Wang, Matthew Krasin, DeoKumar Srivastava, Songul Onder, Dennis W. Jay, Kirsten K. Ness, William Greene, Jennifer Q. Lanctot, Kyla C. Shelton, Liang Zhu, Daniel A. Mulrooney, Matthew J. Ehrhardt, Andrew M. Davidoff, Leslie L. Robison, and Melissa M. Hudson

994 ★Discovery and Validation of a Urinary Exosome mRNA Signature for the Diagnosis of Human Kidney Transplant Rejection

Rania El Fekih, James Hurley, Vasisht Tadigotla, Areej Alghamdi, Anand Srivastava, Christine Coticchia, John Choi, Hazim Allos, Karim Yatim, Juliano Alhaddad, Siawosh Eskandari, Philip Chu, Albana B. Mihali, Isadora T. Lape, Mauricio P. Lima Filho, Bruno T. Aoyama, Anil Chandraker, Kassem Safa,

James F. Markmann, Leonardo V. Riella, Richard N. Formica, Johan Skog, and Jamil R. Azzi

LETTERS TO THE EDITOR

1005 Roxadustat for Renal Anemia in ESRD from PKD Patients: Is It Safe Enough?

Fei Liu, Jingjing Wang, Qing Ye, Haidong Fu, and Jianhua Mao

- See related reply by Akizawa et al. (pp. 1005–1007) and original article by Akizawa et al. in Vol. 31, Iss. 7, on pages 1628–1639.

1005 Authors' Reply

Tadao Akizawa, Manabu Iwasaki, Yusuke Yamaguchi, Yoshikatsu Majikawa, and Michael Reusch

- See related letter to the editor by Liu et al. (pp. 1005) and original article by Akizawa et al. in Vol. 31, Iss. 7, on pages 1628–1639.