

**P U B L I C A T I O N S**

# 2023

Associations of Kidney Tubule Biomarkers with Left Ventricular Hypertrophy in Children with CKD

Kuan Jiang, Jason H. Greenberg, et al. *In Press*

Association of Urine and Plasma ADMA, SDMA and TMAO Concentrations with Atherosclerotic Cardiovascular Disease Risk in Diabetic Kidney Disease: Findings from the Chronic Renal Insufficiency Cohort (CRIC) Study

Sarah Schrauben, et.al. *In Press*

Association of Kidney Tubule Biomarkers with Cardiac Structure and Function in the Multiethnic Study of Atherosclerosis

Nicholas Wettersten, Ronit Katz, Jason H Greenberg, Orlando M Gutierrez, Joao A C Lima, Mark J Sarnak, Sarah Schrauben, Rajat Deo, Joseph Bonventre, Ramachandran S Vasan, Paul L Kimmel, Michael Shlipak, Joachim H Ix.

Am J Cardiol. 2023 Jun 1;196:11-18. doi: 10.1016/j.amjcard.2023.02.031. Epub 2023 Apr 21.  
[Read the article>>](https://pubmed.ncbi.nlm.nih.gov/37086700/)

Analytical and Biological Variability of a Commercial Modified Aptamer Assay in Plasma Samples of Patients with Chronic Kidney Disease

Ruth F Dubin, Rajat Deo, Yue Ren, Hongzhe Lee, Haochang Shou, Harold Feldman, Paul Kimmel, Sushrut S Waikar, Eugene P Rhee, Adrienne Tin, Jingsha Chen, Joseph Coresh, Alan S Go, Tanika Kelly, Paduranga S Rao, Teresa K Chen, Mark R Segal, Peter Ganz. J Appl Lab Med. 2023 May 4;8(3):491-503.

doi: 10.1093/jalm/jfac145.  
[Read the article>>](https://pubmed.ncbi.nlm.nih.gov/36705086/)

Proteomic cardiovascular risk assessment in chronic kidney disease

Rajat Deo, Ruth F Dubin, Yue Ren, Ashwin C Murthy, Jianqiao Wang, Haotian Zheng, Zihe Zheng, Harold Feldman, Haochang Shou, Josef Coresh, Morgan Grams, Aditya L Surapaneni, Zeenat Bhat, Jordana B Cohen, Mahboob Rahman, Jiang He, Santosh L Saraf, Alan S Go, Paul L Kimmel, Ramachandran S Vasan, Mark R Segal, Hongzhe Li, Peter Ganz. Eur Heart J. 2023 Apr 4; doi: 10.1093/eurheartj/ehad115  
[Read the article>>](https://pubmed.ncbi.nlm.nih.gov/37014015/)

# 2022

Biomarkers of Kidney Tubule Injury and Dysfunction and Risk of Incident Hypertension in Community-Living individuals: Results from the Multi-Ethnic Study of Atherosclerosis

Rakesh Malhotra, Ronit Katz, Paul L. Kimmel, Ramachandran S. Vasan, Jeffrey S. Schelling, Jason H. Greenberg, Chirag R. Parikh, Joseph V. Bonventre, Tala Al- Rousan, Mark J. Sarnak, Orlando M. Gutierrez, Michael G. Shlipak, Joachim H. Ix.. Nephrology Dialysis Transplantation 2022. (In press)

Testican-2 is Associated with Reduced Risk of Incident ESKD

Donghai Wen, Linda Zhou, Zihe Zheng, Aditya Surapaneni, Christie Ballantyne, Ron Hoogeveen, Michael Shlipak, Sushrut Waikar, Ramachandra Vasan, Paul Kimmel, Ruth Dubin, Rajat Deo, Harold Feldman, Peter Ganz, Josef Coresh, Morgan Grams, Eugene Rhee

J Am Soc Nephrol. 2022 Oct 26; ASN.2022020216.

doi: 10.1681/ASN.2022020216. Online ahead of print.  
[Read the article>>](https://pubmed.ncbi.nlm.nih.gov/36288905/)

Metabolite profiling of CKD progression in the chronic renal insufficiency cohort (CRIC) study

Wen D, Zheng Z, Surapaneni A, Yu B, Zhou L, Zhou W, Xie D, Shou H, Avila-Pacheco J, Kalim S, He J, Hsu CY, Parsa A, Rao P, Sondheimer J, Townsend R, Waikar SS, Rebholz CM, Denburg MR, Kimmel PL, Vasan RS, Clish CB, Coresh J, Feldman HI, Grams ME, Rhee EP.

JCI Insight. 2022 Sep 1:e161696. doi: 10.1172/jci.insight.161696. Epub ahead of print. PMID: 36048534.  
[Read the article>>](https://pubmed.ncbi.nlm.nih.gov/36048534/)

Associations of Plasma Biomarkers of Inflammation, Fibrosis, and Kidney Tubular Injury With Progression of Diabetic Kidney Disease: A Cohort Study.

Orlando M Gutiérrez, Michael G Shlipak , Ronit Katz, Sushrut S Waikar, Jason H Greenberg , Sarah J Schrauben, Steven Coca, Chirag R Parikh, Ramachandran S Vasan, Harold I Feldman , Paul L Kimmel, Mary Cushman, Joseph V Bonventre, Mark J Sarnak , Joachim H Ix

Am J Kidney Dis. 2022 Jun;79(6):849-857.e1.

PMID: 34752914 PMCID: PMC9072594 (available on 2023-06-01) DOI: 10.1053/j.ajkd.2021.09.018  
[Read the Article >>](https://pubmed.ncbi.nlm.nih.gov/34752914/)

Longitudinal TNFR1 and TNFR2 and Kidney Outcomes: Results from AASK and VA NEPHRON-D.

Teresa K Chen, Steven G Coca, Michelle M Estrella, Lawrence J Appel, Josef Coresh, Heather Thiessen Philbrook, Wassim Obeid, Linda F Fried, Hiddo J L Heerspink, Joachim H Ix, Michael G Shlipak, Paul L Kimmel, Chirag R Parikh, Morgan E Grams, CKD Biomarkers Consortium (BioCon)

J Am Soc Nephrol. 2022 May;33(5):996-1010. doi: 10.1681/ASN.2021060735. Epub 2022 Mar 21.

PMID: 35314457 PMCID: PMC9063900 (available on 2023-05-01)   
[Read the Article >>](https://pubmed.ncbi.nlm.nih.gov/35314457/)

Biomarkers of Kidney Tubule Disease and Risk of End-Stage Kidney Disease in Persons with Diabetes and CKD.

Amatruda JG, Katz R, Sarnak MJ, Gutierrez OM, Greenberg JH, Cushman M, Waikar S, Parikh CR, Schelling JR, Jogalekar MP, Bonventre JV, Vasan RS, Kimmel PL, Shlipak MG, Ix JH; CKD Biomarkers Consortium.

Kidney Int Rep. 2022 Apr 5;7(7):1514-1523. doi: 10.1016/j.ekir.2022.03.033. PMID: 35812302; PMCID: PMC9263389.  
[Read the Article>>](https://pubmed.ncbi.nlm.nih.gov/35812302/)

Using Machine Learning to Identify Metabolomic Signatures of Pediatric Chronic Kidney Disease Etiology

Arthur M. Lee, Jian Hu, Yunwen Xu, Alison G. Abraham, Rui Xiao, Josef Coresh, Casey Rebholz, Jingsha Chen, Eugene P. Rhee, Harold I. Feldman, Vasan S. Ramachandran, Paul L. Kimmel, Bradley A. Warady, Susan L. Furth, Michelle R. Denburg and for the CKD Biomarkers Consortium

JASN February 2022, 33 (2) 375-386; PMID: 35017168 PMCID: PMC8819986 (available on 2023-02-01) DOI: 10.1681/ASN.2021040538  
[Read the article>>](https://pubmed.ncbi.nlm.nih.gov/35017168/)

Trans-ethnic genome-wide association study of blood metabolites in the Chronic Renal Insufficiency Cohort (CRIC) study

Eugene P Rhee , Aditya Surapaneni , Zihe Zheng , Linda Zhou , Diptavo Dutta , Dan E Arking , Jingning Zhang , ThuyVy Duong , Nilanjan Chatterjee , Shengyuan Luo , Pascal Schlosser , Rupal Mehta , Sushrut S Waikar , Santosh L Saraf , Tanika N Kelly, Lee L Hamm, Panduranga S Rao, Anna V Mathew, Chi-Yuan Hsu, Afshin Parsa , Ramachandran S Vasan, Paul L Kimmel, Clary B Clish, Josef Coresh, Harold I Feldman , Morgan E Grams, CKD Biomarkers Consortium and the Chronic Renal Insufficiency Cohort (CRIC) Study Investigators

Kidney Int. 2022 Apr;101(4):814-823.

doi: 10.1016/j.kint.2022.01.014. Epub 2022 Feb 1  
[Read the Article>>](https://pubmed.ncbi.nlm.nih.gov/35120996/)

Plasma Biomarkers as Risk Factors for Incident CKD.

Sarnak MJ, Katz R, Ix JH, Kimmel PL, Bonventre JV, Schelling J, Cushman M, Vasan RS, Waikar SS, Greenberg JH, Parikh CR, Coca SG, Sabbisetti V, Jogalekar MP, Rebholz C, Zheng Z, Gutierrez OM, Shlipak MG.

Kidney Int Rep. 2022 Mar 25;7(7):1493-1501. doi: 10.1016/j.ekir.2022.03.018. PMID: 35812266; PMCID: PMC9263237.  
[Read the Article>>](https://pubmed.ncbi.nlm.nih.gov/35812266/)

Association of Uremic Solutes With Cardiovascular Death in Diabetic Kidney Disease.

Sapa H, Gutiérrez OM, Shlipak MG, Katz R, Ix JH, Sarnak MJ, Cushman M, Rhee EP, Kimmel PL, Vasan RS, Schrauben SJ, Feldman HI, Seegmiller JC, Brunengraber H, Hostetter TH, Schelling JR; CKD Biomarkers Consortium.

Am J Kidney Dis. 2022 Mar 26:S0272-6386(22)00577-7. doi: 10.1053/j.ajkd.2022.02.016. Epub ahead of print. PMID: 35351578.  
[Read the Article>>](https://pubmed.ncbi.nlm.nih.gov/35351578/)

# 2021

Variability in CKD Biomarker Studies: Soluble Urokinase Plasminogen Activator Receptor (suPAR) and Kidney Disease Progression in the Chronic Kidney Disease in Children (CKiD) Study

Alison G Abraham, Yunwen Xu, Jennifer L Roem, Jason H Greenberg, Darcy K Weidemann, Venkata S Sabbisetti, Joseph V Bonventre, Michelle Denburg, Bradley A Warady, Susan L Furth, CKD Biomarkers Consortium; CKD Biomarker consortium.

Kidney Med. 2021 Jun 17;3(5):712-721.e1.doi: 10.1016/j.xkme.2021.04.007. eCollection Sep-Oct 2021.

PMID: 34693253 PMCID: PMC8515077 DOI: 10.1016/j.xkme.2021.04.007  
[Read the Article>>](https://pubmed.ncbi.nlm.nih.gov/34693253/)

Metabolite Biomarkers of CKD Progression in Children

Michelle R Denburg, Yunwen Xu, Alison G Abraham, Josef Coresh, Jingsha Chen, Morgan E Grams, Harold I Feldman, Paul L Kimmel, Casey M Rebholz, Eugene P Rhee, Ramachandran S Vasan, Bradley A Warady, Susan L Furth, CKD Biomarkers Consortium

Clin J Am Soc Nephrol. 2021 Aug;16(8):1178-1189. doi: 10.2215/CJN.00220121.  
[Read the article>>](https://pubmed.ncbi.nlm.nih.gov/34362785/)

Urine Biomarkers of Kidney Tubule Health, Injury, and Inflammation are Associated with Progression of CKD in Children

Jason H Greenberg, Alison G Abraham, Yunwen Xu, Jeffrey R Schelling, Harold I Feldman, Venkata S Sabbisetti, Joachim H Ix, Manasi P Jogalekar, Steven Coca, Sushrut S Waikar, Michael G Shlipak, Bradley A Warady, Ramachandran S Vasan, Paul L Kimmel, Joseph V Bonventre, Michelle Denburg, Chirag R Parikh, Susan Furth, CKD Biomarkers Consortium; CKD Biomarker consortium.

J Am Soc Nephrol. 2021 Oct;32(10):2664-2677. doi: 10.1681/ASN.2021010094. Epub 2021 Sep 20. PMID: 34544821  
[Read the article>>](https://pubmed.ncbi.nlm.nih.gov/34544821/)

Plasma metabolomic signature of healthy dietary patterns in the Chronic Renal Insufficiency Cohort (CRIC) Study

[Hyunju Kim](https://pubmed.ncbi.nlm.nih.gov/?term=Kim+H&cauthor_id=34195833), [Cheryl Am Anderson](https://pubmed.ncbi.nlm.nih.gov/?term=Anderson+CA&cauthor_id=34195833), [Emily A Hu](https://pubmed.ncbi.nlm.nih.gov/?term=Hu+EA&cauthor_id=34195833), [Zihe Zheng](https://pubmed.ncbi.nlm.nih.gov/?term=Zheng+Z&cauthor_id=34195833), [Lawrence J Appel](https://pubmed.ncbi.nlm.nih.gov/?term=Appel+LJ&cauthor_id=34195833), [Jiang He](https://pubmed.ncbi.nlm.nih.gov/?term=He+J&cauthor_id=34195833), [Harold I Feldman](https://pubmed.ncbi.nlm.nih.gov/?term=Feldman+HI&cauthor_id=34195833), [Amanda H Anderson](https://pubmed.ncbi.nlm.nih.gov/?term=Anderson+AH&cauthor_id=34195833), [Ana C Ricardo](https://pubmed.ncbi.nlm.nih.gov/?term=Ricardo+AC&cauthor_id=34195833), [Zeenat Bhat](https://pubmed.ncbi.nlm.nih.gov/?term=Bhat+Z&cauthor_id=34195833), [Tanika N Kelly](https://pubmed.ncbi.nlm.nih.gov/?term=Kelly+TN&cauthor_id=34195833), [Jing Chen](https://pubmed.ncbi.nlm.nih.gov/?term=Chen+J&cauthor_id=34195833), [Ramachandran S Vasan](https://pubmed.ncbi.nlm.nih.gov/?term=Vasan+RS&cauthor_id=34195833), [Paul L Kimmel](https://pubmed.ncbi.nlm.nih.gov/?term=Kimmel+PL&cauthor_id=34195833), [Morgan E Grams](https://pubmed.ncbi.nlm.nih.gov/?term=Grams+ME&cauthor_id=34195833), [Josef Coresh](https://pubmed.ncbi.nlm.nih.gov/?term=Coresh+J&cauthor_id=34195833), [Clary B Clish](https://pubmed.ncbi.nlm.nih.gov/?term=Clish+CB&cauthor_id=34195833), [Eugene P Rhee](https://pubmed.ncbi.nlm.nih.gov/?term=Rhee+EP&cauthor_id=34195833), [Casey M Rebholz](https://pubmed.ncbi.nlm.nih.gov/?term=Rebholz+CM&cauthor_id=34195833)**,**

J Nutr. 2021 Jun 30;nxab203. doi: 10.1093/jn/nxab203 Epub: ahead of print PMID: 34195833  
[Read the article>>](https://pubmed.ncbi.nlm.nih.gov/34195833/)

# 2020

Association of Multiple Plasma Biomarker Concentrations with Progression of Prevalent Diabetic Kidney Disease: Findings from the Chronic Renal Insufficiency Cohort (CRIC) Study.

Schrauben SJ, Shou H, Zhang X, Anderson AH, Bonventre JV, Chen J, Coca S, Furth SL, Greenberg JH, Gutierrez OM, Ix JH, Lash JP, Parikh CR, Rebholz CM, Sabbisetti V, Sarnak MJ, Shlipak MG, Waikar SS, Kimmel PL, Ramachandran VS, Feldman HI, Schelling JR, CKD Biomarkers Consortium and the Chronic Renal Insufficiency Cohort (CRIC) Study Investigators.

J Am Soc Nephrol. 2021 Jan;32(1):115-126. doi: 10.1681/ASN.2020040487. Epub 2020 Oct 29.  
[Read the article>>](https://pubmed.ncbi.nlm.nih.gov/33122288/)

Plasma Biomarkers of Tubular Injury and Inflammation Are Associated with CKD Progression in Children.

Greenberg JH, Abraham AG, Xu Y, Schelling JR, Feldman HI, Sabbisetti VS, Gonzalez MC, Coca S, Schrauben SJ, Waikar SS, Ramachandran VS, Shlipak MG, Warady B, Kimmel PL, Bonventre JV, Denburg M, Parikh CR, Furth S; CKD Biomarkers Consortium.

J Am Soc Nephrol. 2020 May;31(5):1067-1077. doi: 10.1681/ASN.2019070723. Epub 2020 Mar 31. PMID: 32234829   
[Read the article>>](https://pubmed.ncbi.nlm.nih.gov/32234829/)

# 2019

Serum Metabolomic Alterations Associated with Proteinuria in CKD

Shengyuan Luo, Josef Coresh, Adrienne Tin, Casey M. Rebholz, Lawrence J. Appel, Jingsha Chen, Ramachandran S. Vasan, Amanda H. Anderson, Harold I. Feldman, Paul L. Kimmel, Sushrut S. Waikar, Anna Köttgen, Anne M. Evans, Andrew S. Levey, Lesley A. Inker, Mark J. Sarnak, Morgan Erika Grams and on behalf of the Chronic Kidney Disease Biomarkers Consortium Investigators.**.**   
Clin J Am Soc Nephrol. 2019 Mar 7;14(3):342-353. doi: 10.2215/CJN.10010818. Epub 2019 Feb 7. PMID: 30733224  
[Read the article > >](https://www.ncbi.nlm.nih.gov/pubmed/30733224)

Variability of Two Metabolomic Platforms in CKD.

Eugene P. Rhee, Sushrut S. Waikar, Casey M. Rebholz, Zihe Zheng, Regis Perichon, Clary B. Clish, Anne M. Evans, Julian Avila, Michelle R. Denburg, Amanda Hyre Anderson, Ramachandran S. Vasan, Harold I. Feldman, Paul L. Kimmel, Josef Coresh and on behalf of the CKD Biomarkers Consortium.   
Clin J Am Soc Nephrol. 2019 Jan 7;14(1):40-48. doi: 10.2215/CJN.07070618. Epub 2018 Dec 20. PMID: 30573658  
[Read the article > >](https://www.ncbi.nlm.nih.gov/pubmed/30573658)