Beini Lyu, MD, PhD

Assistant professor

Peking University Institute for Global Health and Development

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Education

2017-2021 Ph.D. in Epidemiology, University of Wisconsin-Madison

2008-2016 M.D. (8-year program), Peking University

Appointment/Position

2022/09- present, *Assistant professor*, Peking University Institute for Global Health and Development 2021/06 – 2022/06 *Research associate*, Cardiovascular and Clinical Epidemiology track, Departments of Epidemiology, Johns Hopkins Bloomberg School of Public Health

Research Funding

1. Micro research grant Exploring community characteristics and race on vascular access management
American Society of Diagnostic and Interventional Nephrology

Role: Principal investigator

2. R01DK100446-05 Chronic Kidney Disease Prognosis Consortium

National Institute of Health/National Institute of Diabetes and Digestive and Kidney Diseases

Role: Co-Investigator

3. R01DK115534-01A1 Medication Use and Adverse Events in CKD

National Institute of Health/National Institute of Diabetes and Digestive and Kidney Diseases

Role: Co-Investigator

4. R01DK124399 Integrative Omics, Chronic Kidney Disease, and Outcomes in Older Adults

National Institute of Health/National Institute of Diabetes and Digestive and Kidney Diseases

Role: Co-Investigator

Publications

1. Lyu B, Sang Y, Selvin E, Chang AR, Alexander CG, Cohen CM, Coresh J, Shaleve V, Chodick G,

- Karasik A, Carrero JJ, Fu EL, Xu Y, Grams ME, Shin JI. Pharmacologic Treatment of Type 2 Diabetes in the United States, Sweden, and Israel: A Comparison across three Health Systems. *Diabetes Care* (in press)
- 2. **Lyu B,** Singh T, Astor BC. Epidemiology and outcomes for chronic kidney disease. *Nephrology Self-Assessment Program*. 2022; 21 (2).
- 3. **Lyu B**, Hwang YJ, Selvin E, Jameson BC, Chang AR, Grams ME, Shin JI. Antidiabetic agents and the risk of hypoglycemia: a real-world study. *Journal of General Internal Medicine*. 2022.
- 4. Lyu B, Chang AR, Inker LA, Selvin E, Grams ME, Shin JI. Socioeconomic Status and obesogenic medication use in the United States. *the Lancet Regional Health-Americas*. 11 (2022): 100249.

The Lancet Regional Health-Americas Editorial Commentaries: Obesogenic and leptogenic medication utilization in people with obesity: Is there a prescription for improvement? Healio Primary Care news: https://www.healio.com/news/primary-care/20220419/adults-with-lower-socioeconomic-status-more-likely-to-use-obesogenic-medications

- 5. Lyu B, Grams ME, Inker LA, Chang AR, Selvin E, Shin JI. Weight changes following antidiabetic mediation use: real-world evidence from health system data. *Obesity Science & Practice*.2022.
- Lyu B, Grams ME, Chang AR, Inker LA, Coresh J, Shin JI. SGLT2 Inhibitors, GLP-1 Receptor Agonists, and DPP4 Inhibitors and risk of hospitalization. *American Journal of cardiology*. 2022 Feb 15;165:124-130.
- 7. **Lyu B,** Chan MR, Yevzlin AS, Gardezi A, Astor BC. Arteriovenous access and risk of mortality and hospitalization among elderly hemodialysis patients- a target trial emulation approach. *American Journal of Kidney Diseases*. 2022 Jan;79(1):69-78.

Healio Nephrology news: https://www.healio.com/news/nephrology/20210630/arteriovenous-access-types-demonstrate-similar-risk-profiles

USRDS Publication Spotlight: https://www.usrds.org/publications/

- 8. Panthofer AM, **Lyu B**, Astor BC, Singh T, Aziz F, Mandelbrot DA, Parajuli S, Mohamed M, Djamali A, Garg N. Post-Kidney Transplant Serum Magnesium Exhibits a U-Shaped Association with Subsequent Mortality: An Observational Cohort Study. *Transplant International*. 2021 Oct;34(10):1853-1861.
- Hwang YJ, Lyu B, Chang AR, Inker LA, Grams ME, Shin JI. Sodium-glucose cotransporter-2 inhibitors and the risk of abnormal serum potassium level: a population-based cohort study.
 Clinical Journal of American Society of Nephrology. 2021 Jul;16(7):1094-1096.
- 10. **Lyu B**, Mandelbrot DA, Djamali A, Astor BC. Graft Function Variability and Slope and Kidney Transplantation Outcomes. *Kidney International Reports*. 2021.6(6):1642-1652.
- 11. Lyu B, Chan MR, Yevzlin AS, Astor BC. Catheter dependence after arteriovenous fistula or graft

- placement among elderly patients on hemodialysis. *American Journal of Kidney Diseases*. Am J Kidney Dis. 2021 Sep;78(3):399-408.
- 12. **Lyu B**, Hansen KE, Jorgenson MR, Astor BC. Proton pump inhibitor and H2 receptor antagonist use and change in bone mineral density among kidney transplant recipients. *Am J Nephrol*. 2020;51(6):433-441.
- 13. **Lyu B**, Jorgenson MR, Hansen KE, Djamali A, Astor BC. Proton pump inhibitors, but not H2 receptor antagonists, are associated with incident fractures among kidney transplant recipients. Transplantation. *Transplantation*. 2020;104(12):2609-2615.
- 14. **Lyu B**, Hagen EW, Ravelo LA, Peppard PE. Blood pressure dipping and sleep quality in the Wisconsin Sleep Cohort. *J Hypertens*. 2020; 38(3):448-455.
 - J Hypertens Editorial Commentaries: <u>Time to rethink the management of underlying sleep</u> disturbances in nondippers?
- Jorgenson MR, Descourouez JL, Lyu B, Astor BC, Saddler CM, Mandelbrot DA, Parajuli S.
 Management of BK Viremia is Associated with a Lower Risk of Subsequent Cytomegalovirus Infection in Kidney Transplant Recipients. *Clin Transplant*. 2020;34(3):e13798.
- Tiwari R, Lyu B, Alagusundaramoorthy S, Astor BC, Mandelbrot DA, Parajuli S. Association of diagnosed obstructive sleep apnea with kidney transplant outcomes. *Clin Transplant*. 2019; 33(12).
- Jorgenson MR, Descourouez JL, Lyu B, Astor BC, Garg N, Smith JA, Mandelbrot DA. The Risk of Cytomegalovirus Infection after Treatment of Acute Rejection in Renal Transplant Recipients. *Clin Transplant*. 2019; 33(8):e13636.
- Jorgenson MR, Descourouez JL, Cardinale B, Lyu B, Astor BC, Garg N, Saddler CM, Smith JA, Mandelbrot DA. Risk of opportunistic infection in kidney transplant recipients with cytomegalovirus infection and associated outcomes. *Transpl Infect Dis*. 2019 Jun; 21(3):e13080.
- Lyu B, Banerjee T, Scialla JJ, Shafi T, Yevzlin AS, Powe NR, Parekh RS, Astor BC. Vascular Calcification Markers and Hemodialysis Vascular Access Complications. *Am J Nephrol*. 2018; 48(5):330-338.
- Cai W, Hite ZL, Lyu B, Wu Z, Lin Z, Gregorich ZR, Messer AE, McIlwain SJ, Marston SB, Kohmoto T, Ge Y. Temperature-sensitive sarcomeric protein post-translational modifications revealed by top-down proteomics. *J Mol Cell Cardiol*. 2018; 122:11-22.

Manuscripts under Review

21. **Lyu B**, Inker LA, Chang AR, Nolin TD, Coresh J, Grams ME, Shin JI. Estimated glomerular filtration rate indicators for drug dosing: discordance by BMI and age (*submitted*)

22. Hwang J, Lyu B, Ballew S, Coresh J, Grams AE, Shin JI. The association between socioeconomic status and use of potentially inappropriate medications in older adults (under review at Journal of the American Geriatrics Society)

Honors and Awards

- The Chinese Government Award for Outstanding Self-Financed Student Abroad, 2022
- Donn D'Alessio Outstanding Student Award, Department of Population Health Sciences, UW-Madison, 2021.
- University of Wisconsin-Madison Holtz Center science and technology studies conference mini grant, 2020
- American Society of Nephrology Kidney STARS award recipient, 2020
- American Heart Association Student Scholarships in Cardiovascular Disease, 2020
 Proposal: Graft function slope and variability and risk of cardiovascular events in kidney transplant recipients
- Student Research Travel Award, UW-Madison, 2019.
- People's Choice Poster Award, UW-Madison, Department of Population Health Sciences, 2018.
- Merit Student of Peking University, 2009, 2010, and 2014.
- Scholarship for Merit Medical Student, Peking University, 2011, 2012, 2013 and 2014.
- National Scholarship, Chinese government, 2009.

Presentations

- EPI | Lifestyle and Cardiometabolic Health Scientific Sessions, American Heart Association, Chicago, 2022/03
 - Socioeconomic status and use of obesogenic and anti-obesity medications in the United States-a population-based study
- 2. Annual Meeting of the American Society of Nephrology, online, 2021/11.
 - Weight changes following antidiabetic mediation use: real-world evidence from health system data
- 3. American Diabetes Association's Virtual 81st Scientific Sessions, online, 2021/06
 - SGLT2 Inhibitors, GLP-1 Receptor Agonists, and DPP-4 Inhibitors and Risk of All-Cause Hospitalization
- 4. University of Wisconsin-Madison, Department of Nephrology Grand Rounds; Madison, Wisconsin,

2020/11

- Emulating randomized controlled trial using observational data
- 5. Annual Meeting of the American Society of Nephrology, online, 2020/10.
 - Catheter dependency after vascular access placement among elderly patients on hemodialysis: an intention-to-treat analysis.
 - Vascular access type and risk of mortality and hospitalization among elderly hemodialysis patients: a target trial emulation approach.
 - Short-term variability in graft function is associated with long-term mortality but not allograft survival in kidney transplant recipients.
- 6. University of Wisconsin-Madison, Department of Nephrology Grand Rounds; Madison, Wisconsin, 2020/1
 - Proton pump inhibitors and the kidney
- 7. Annual Meeting of the American Society of Nephrology; DC, 2019/11.
 - Proton pump inhibitors use and risk of major fracture in kidney transplant recipients.
- 8. Society for Epidemiology Research 52nd Annual Meeting, Minneapolis, Minnesota, 2019/7
 - Proton pump inhibitor and H2 receptor antagonist use and change in bone mineral density among kidney transplant recipients
- University of Wisconsin-Madison, Department of Population Heal Science Welcome Day Poster session. Madison, Wisconsin. 2018/3
 - Vascular Calcification Markers and Hemodialysis Vascular Access Complications.

Peer Reviewer

- Diabetes Care
- Journal of the American Society of Nephrology
- Clinical Journal of the American Society of Nephrology
- Clinical Transplantation
- BMC nephrology
- Cardiology
- Hemodialysis international
- Antimicrobial Agents and Chemotherapy

Professional organizations

Society for Epidemiology Research, 2018 - present

American Society of Nephrology, 2019 - present American Heart Association, 2020 - present American Diabetes Association, 2021- present