Stanford



Tammy Lisa Sirich

Assistant Professor of Medicine (Nephrology)

Medicine - Nephrology

Bio

ACADEMIC APPOINTMENTS

- Assistant Professor-Univ Med Line, Medicine - Nephrology
- Member, Bio-X

ADMINISTRATIVE APPOINTMENTS

- Associate Program Director, Stanford Nephrology, (2021- present)
- Dialysis Director, VA Palo Alto, (2019-2026)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, American Society of Nephrology Kidney Week 2023 Education Committee (2023 - 2023)
- Reviewer, American Society of Nephrology Grants Review Committee (2023 - present)
- Member, American Society of Nephrology Kidney Week 2024 Education Committee (2024 - 2024)
- Associate Editor, Kidney360 (2024 - 2026)
- Member, KDOQI Clinical Practice Guideline for Hemodialysis Adequacy: 2026 Update Workgroup (2026 - present)

PROFESSIONAL EDUCATION

- Fellowship, Stanford University , Nephrology (2011)
- Residency, Santa Clara Valley Medical Center , Internal Medicine (2009)
- MD, UC San Diego (2006)
- BS, UC Berkeley , Chemistry (2002)

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

I conduct translational research focused on uremia and dialysis. I use mass spectrometry to conduct studies testing ways to reduce levels of solutes and examining the contribution of uremic solutes to illness.

CLINICAL TRIALS

- Efficacy of Diuretics in Kidney Disease, Not Recruiting
- Efficacy of Twice Weekly Hemodialysis in Patients With Residual Kidney Function, Not Recruiting

PROJECTS

- Dialysis stdKt/V Calculator App Description

Publications

PUBLICATIONS

- **An integrative roadmap for a new era of kidney replacement therapies.** *Nature reviews. Nephrology*
  Winkler, M. K., Ash, S. R., Barraclough, K. A., Bluechel, C., Ferrell, N., Fissell, W., Freedman, B. S., Gerritsen, K. G., Hassan, H. A., Hentschel, D. M., Hestekin, J., Hughes, A., Johnson, et al
  2026
- **Depletion of the Antioxidant Ergothioneine by Critical Illness and Continuous Renal Replacement Therapy.** *Kidney and dialysis*
  Espinosa, W. A., Lee, S., Suba, J. K., Keo, L. S., Meyer, T. W., Sirich, T. L.
  2026; 6 (3)
- **Depletion of Uric Acid by Continuous Kidney Replacement Therapy** *BLOOD PURIFICATION*
  Lee, S., Espinosa, W., Sirich, T. L., Meyer, T. W.
  2026: 1
- **A Web-Based Program to Facilitate Prescription of Twice-Weekly Hemodialysis.** *Clinical journal of the American Society of Nephrology : CJASN*
  Vansomphone, A. P., Sirich, T. L., Meyer, T. W.
  2026
- **Ergothioneine Depletion in Peritoneal Dialysis.** *Kidney360*
  Keo, L. S., Suba, J. K., Pham, N. M., Abra, G. E., Yu, M. K., Sirich, T. L.
  2025
- **Properties of uremic solutes that allow their effective control by peritoneal dialysis.** *Peritoneal dialysis international : journal of the International Society for Peritoneal Dialysis*
  Sirich, T. L., Yalamarti, T., Suba, J. K., Keo, L. S., Pereira Ortiz, M., Chan, K. H., Yu, M. K., Abra, G. E., Meyer, T. W.
  2025: 8968608251403883
- **From Niche to Norm: A Multi-Action Plan to Close Gaps and Mainstream Incremental Hemodialysis.** *Kidney international*
  Murea, M., Torreggiani, M., Deira, J., Sirich, T. L., Viecelli, A. K., Vilar, E., Suarez-Santisteban, M. A., Daugirdas, J. T., Farrington, K., Kalantar-Zadeh, K., Saudan, P., Jaques, D. A., Foley, et al
  2025
- **Economic Considerations of Incremental Hemodialysis.** *Kidney360*
  Erickson, K. F., Sirich, T. L.
  2025
- **Can Intermittent Hemodialysis Normalize Plasma Solute Levels?** *Kidney360*
  Sirich, T. L.
  2025; 6 (3): 340-342
- **Properties of Uremic Solutes That Allow Their Effective Control by Hemodialysis.** *Kidney360*
  Yalamarti, T., Sirich, T. L., Hai, X., Suba, J. K., Keo, L. S., Chan, K. H., Meyer, T. W.
  2025
- **Depletion by Hemodialysis of the Antioxidant Ergothioneine.** *Kidney360*
  Suba, J. K., Keo, L. S., Sirich, T. L.
  2024
- **Twice Weekly Versus Thrice Weekly Hemodialysis - A Pilot Cross-Over Equivalence Trial.** *Clinical journal of the American Society of Nephrology : CJASN*
  Lee, S., Pham, N. M., Montez-Rath, M. E., Bolanos, C. G., Bonde, S. S., Meyer, T. W., Sirich, T. L.
  2024

- **Longitudinal Changes in Kidney Solute Clearance in a Prospective Cohort of Patients Initiating Chronic Hemodialysis.** *Kidney international reports*
  Sirich, T. L., Tan, Z., Highland, B. R., Lin, Z., Russell, G. B., Murea, M.
  2024; 9 (6): 1774-1782
- **The Hemodialysis Prescription: Past, Present, and Future.** *Kidney360*
  Murea, M., Sirich, T. L.
  2023
- **Increasing the Clearance of Protein Bound Solutes by Recirculating Dialysate through Activated Carbon.** *Kidney360*
  Meyer, T. W., Lee, S., Whitmer, L. C., Blanco, I. J., Suba, J. K., Sirich, T. L.
  2023
- **Critical Appraisal of Limitations in the Current Definition/Classification of Uremic Toxins.** *Blood purification*
  Husain-Syed, F., Vanholder, R., Rosner, M. H., Kawanishi, H., Sirich, T. L., Ronco, C.
  2022: 1-12
- **Effect of Furosemide on Proximal Tubular Secretion of Organic Solutes in Patients Receiving Hemodialysis.** *Clinical journal of the American Society of Nephrology : CJASN*
  Sirich, T., Hostetter, T., Flythe, J.
  2022
- **Removal of Uremic Solutes from Dialysate by Activated Carbon.** *Clinical journal of the American Society of Nephrology : CJASN*
  Lee, S., Sirich, T. L., Blanco, I. J., Plummer, N. S., Meyer, T. W.
  2022
- **Improving Solute Clearances by Hemodialysis.** *Blood purification*
  Lee, S., Sirich, T. L., Meyer, T. W.
  2022: 1-12
- **Barriers to Reducing Hemodialysis Time and Frequency in Patients with Residual Kidney Function.** *Journal of the American Society of Nephrology : JASN*
  Meyer, T. W., Blanco, I. J., Grimm, J. C., Leypoldt, J. K., Sirich, T. L.
  2021; 32 (9): 2112-2116
- **Impaired Tubular Secretion of Organic Solutes in Advanced CKD.** *Journal of the American Society of Nephrology : JASN*
  Mair, R., Lee, S., Plummer, N., Sirich, T., Meyer, T.
  2021
- **Association of Plasma Uremic Solute Levels with Residual Kidney Function in Children on Peritoneal Dialysis.** *Clinical journal of the American Society of Nephrology : CJASN*
  Ganesan, L., O'Brien, F., Sirich, T., Plummer, N., Sheth, R., Fajardo, C., Brakeman, P., Sutherland, S., Meyer, T.
  2021
- **Improving Clearance for Renal Replacement Therapy.** *Kidney360*
  Lee, S., Sirich, T. L., Meyer, T. W.
  2021; 2 (7): 1188-1195
- **Metabolomic analysis of uremic pruritus in patients on hemodialysis.** *PloS one*
  Bolanos, C. G., Pham, N. M., Mair, R. D., Meyer, T. W., Sirich, T. L.
  2021; 16 (2): e0246765
- **Classification of Uremic Toxins and Their Role in Kidney Failure.** *Clinical journal of the American Society of Nephrology : CJASN*
  Rosner, M., Reis, T., Husain-Syed, F., Vanholder, R., Hutchison, C., Stenvinkel, P., Blankestijn, P., Cozzolino, M., Juillard, L., Kashani, K., Kaushik, M., Kawanishi, H., Massy, et al
  2021
- **Impaired Tubular Secretion of Organic Solutes in Acute Kidney Injury.** *Kidney360*
  O'Brien, F. J., Mair, R. D., Plummer, N. S., Meyer, T. W., Sutherland, S. M., Sirich, T. L.
  2020; 1 (8): 724-730

- **Contribution of 'clinically negligible' residual kidney function to clearance of uremic solutes** *NEPHROLOGY DIALYSIS TRANSPLANTATION*
  Toth-Manikowski, S. M., Sirich, T. L., Meyer, T. W., Hostetter, T. H., Hwang, S., Plummer, N. S., Hai, X., Coresh, J., Powe, N. R., Shafi, T.
  2020; 35 (5): 846–53
- **Asymmetric dimethylarginine, erythropoietin resistance, and anemia in CKD.** *Annals of translational medicine*
  Sirich, T. L., Chertow, G. M.
  2019; 7 (Suppl 3): S86
- **Accumulation of Uremic Solutes in the Cerebrospinal Fluid in Experimental Acute Renal Failure.** *American journal of physiology. Renal physiology*
  Mair, R. D., Nguyen, H., Huang, T., Plummer, N. S., Sirich, T. L., Meyer, T. W.
  2019
- **Blood Microbiome in CKD: Should We Care?** *CLINICAL JOURNAL OF THE AMERICAN SOCIETY OF NEPHROLOGY*
  Mair, R. D., Sirich, T. L.
  2019; 14 (5): 648–49
- **Timing of blood pressure medications and intradialytic hypotension.** *Seminars in dialysis*
  Wang, K. M., Sirich, T. L., Chang, T. I.
  2019
- **Plasma pseudouridine levels reflect body size in children on hemodialysis.** *Pediatric nephrology (Berlin, Germany)*
  O'Brien, F. J., Sirich, T. L., Taussig, A. n., Fung, E. n., Ganesan, L. L., Plummer, N. S., Brakeman, P. n., Sutherland, S. M., Meyer, T. W.
  2019
- **Characteristics of Colon-Derived Uremic Solutes.** *Clinical journal of the American Society of Nephrology : CJASN*
  Mair, R. D., Sirich, T. L., Plummer, N. S., Meyer, T. W.
  2018
- **Uremic Toxin Clearance and Cardiovascular Toxicities.** *Toxins*
  Mair, R. D., Sirich, T. L., Meyer, T. W.
  2018; 10 (6)
- **Intensive Hemodialysis Fails to Reduce Plasma Levels of Uremic Solutes** *CLINICAL JOURNAL OF THE AMERICAN SOCIETY OF NEPHROLOGY*
  Sirich, T. L., Meyer, T. W.
  2018; 13 (3): 361–62
- **Residual Function Effectively Controls Plasma Concentrations of Secreted Solutes in Patients on Twice Weekly Hemodialysis.** *Journal of the American Society of Nephrology : JASN*
  Leong, S. C., Sao, J. N., Taussig, A. n., Plummer, N. S., Meyer, T. W., Sirich, T. L.
  2018
- **Untargeted mass spectrometry discloses plasma solute levels poorly controlled by hemodialysis** *PLOS ONE*
  Sirich, T. L., Aronov, P. A., Fullman, J., Khanh Nguyen, Plummer, N. S., Meyer, T. W.
  2017; 12 (11): e0188315
- **Obstacles to reducing plasma levels of uremic solutes by hemodialysis.** *Seminars in dialysis*
  Sirich, T. L.
  2017; 30 (5): 403-408
- **Manipulating the microbiome** *KIDNEY INTERNATIONAL*
  Sirich, T. L., Meyer, T. W.
  2017; 91 (2): 274–76
- **Limited reduction in uremic solute concentrations with increased dialysis frequency and time in the Frequent Hemodialysis Network Daily Trial.** *Kidney international*
  Sirich, T. L., Fong, K., Larive, B., Beck, G. J., Chertow, G. M., Levin, N. W., Kliger, A. S., Plummer, N. S., Meyer, T. W.
  2017

- **Indoxyl Sulfate-Review of Toxicity and Therapeutic Strategies** *TOXINS*
  Leong, S. C., Sirich, T. L.
  2016; 8 (12)
- **Metabolic Profiling of Impaired Cognitive Function in Patients Receiving Dialysis** *JOURNAL OF THE AMERICAN SOCIETY OF NEPHROLOGY*
  Tamura, M. K., Chertow, G. M., Depner, T. A., Nissenson, A. R., Schiller, B., Mehta, R. L., Liu, S., Sirich, T. L.
  2016; 27 (12): 3780-3787
- **Kt/Vurea and Nonurea Small Solute Levels in the Hemodialysis Study.** *Journal of the American Society of Nephrology*
  Meyer, T. W., Sirich, T. L., Fong, K. D., Plummer, N. S., Shafi, T., Hwang, S., Banerjee, T., Zhu, Y., Powe, N. R., Hai, X., Hostetter, T. H.
  2016; 27 (11): 3469-3478
- **More Dialysis Has Not Proven Much Better.** *Seminars in dialysis*
  O'Brien, F. J., Fong, K. D., Sirich, T. L., Meyer, T. W.
  2016; 29 (6): 481-490
- **Effect of a sustained difference in hemodialytic clearance on the plasma levels of p-cresol sulfate and indoxyl sulfate** *NEPHROLOGY DIALYSIS TRANSPLANTATION*
  Camacho, O., Rosales, M. C., Shafi, T., Fullman, J., Plummer, N. S., Meyer, T. W., Sirich, T. L.
  2016; 31 (8): 1335-1341
- **Tubular Secretion in CKD** *JOURNAL OF THE AMERICAN SOCIETY OF NEPHROLOGY*
  Suchy-Dicey, A. M., Laha, T., Hoofnagle, A., Newitt, R., Sirich, T. L., Meyer, T. W., Thummel, K. E., Yanez, N. D., Himmelfarb, J., Weiss, N. S., Kestenbaum, B. R.
  2016; 27 (7): 2148-2155
- **An Enlarged Profile of Uremic Solutes** *PLOS ONE*
  Tanaka, H., Sirich, T. L., Plummer, N. S., Weaver, D. S., Meyer, T. W.
  2015; 10 (8)
- **Uremic Solutes Produced by Colon Microbes** *BLOOD PURIFICATION*
  Tanaka, H., Sirich, T. L., Meyer, T. W.
  2015; 40 (4): 306-311
- **Dietary Protein and Fiber in End Stage Renal Disease** *SEMINARS IN DIALYSIS*
  Sirich, T. L.
  2015; 28 (1): 75-80
- **Effect of Increasing Dietary Fiber on Plasma Levels of Colon-Derived Solutes in Hemodialysis Patients** *CLINICAL JOURNAL OF THE AMERICAN SOCIETY OF NEPHROLOGY*
  Sirich, T. L., Plummer, N. S., Gardner, C. D., Hostetter, T. H., Meyer, T. W.
  2014; 9 (9): 1603-1610
- **Uremic solutes and risk of end-stage renal disease in type 2 diabetes: metabolomic study** *KIDNEY INTERNATIONAL*
  Niewczas, M. A., Sirich, T. L., Mathew, A. V., Skupien, J., Mohney, R. P., Warram, J. H., Smiles, A., Huang, X., Walker, W., Byun, J., Karoly, E. D., Kensicki, E. M., Berry, et al
  2014; 85 (5): 1214-1224
- **Prominent Accumulation in Hemodialysis Patients of Solutes Normally Cleared by Tubular Secretion** *JOURNAL OF THE AMERICAN SOCIETY OF NEPHROLOGY*
  Sirich, T. L., Funk, B. A., Plummer, N. S., Hostetter, T. H., Meyer, T. W.
  2014; 25 (3): 615-622
- **Protein-Bound Molecules: A Large Family With a Bad Character** *SEMINARS IN NEPHROLOGY*
  Sirich, T. L., Meyer, T. W., Gondouin, B., Brunet, P., Niwa, T.
  2014; 34 (2): 106-117
- **Numerous protein-bound solutes are cleared by the kidney with high efficiency** *KIDNEY INTERNATIONAL*
  Sirich, T. L., Aronov, P. A., Plummer, N. S., Hostetter, T. H., Meyer, T. W.

2013; 84 (3): 585-590

- **Selectively increasing the clearance of protein-bound uremic solutes** *NEPHROLOGY DIALYSIS TRANSPLANTATION*
  Sirich, T. L., Luo, F. J., Plummer, N. S., Hostetter, T. H., Meyer, T. W.
  2012; 27 (4): 1574-1579