Yiqing Chen

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Education

PhD in Biostatistics   **2020–2025**
University of Texas Health Science Center at Houston   *Houston, TX*
Double Minor in Data Science and Epidemiology

M.S. in Biostatistics   **2015–2017**
University of Florida   *Gainesville, FL*

B.E. in Bioinformatics   **2010–2014**
Tongji University   *Shanghai, China*

Research Areas and Skills

Stochastic Modeling; Bayesian Inference; Mediation Analysis; Clinical Trial Endpoint Projection; Computational Algorithm Development; Genetic Data Analyses
Platforms: R; SAS; Python; SQL; Unix Shell; C++; REDCap; UK Biobank; One Florida Data System

Professional Experience

Assistant Professor of Biostatistics   **2025–present**
Department of Epidemiology & Biostatistics, School of Public Health,Texas A&M University   *College Station, TX*

Statistics Intern   **2023**
Oncology Statistics, Bayer USA   *Whippany, NJ*

Graduate Research Assistant   **2021–2025**
Univerity of Texas MD Anderson Cancer Center   *Houston, TX*

Graduate Research Assistant   **2020–2021**
University of Texas Health Science Center at Houston   *Houston, TX*

Data Management Analyst   **2017–2020**
Department of Pharmacotherapy and Translational Research, University of Florida   *Gainesville, FL*

Selected Publications and Presentations

Peer Reviewed Articles

Full list of published articles can be found on Google Scholar.

1. Damen, P. J., Peters, M., Hobbs, B., **Chen, Y.**, Titt, U., Nout, R., Mohan, R., Lin, S. H. & van Rossum, P. S. Defining the Optimal Radiation-induced Lymphopenia Metric to Discern Its Survival Impact in Esophageal Cancer. *International Journal of Radiation Oncology* Biology* Physics* 122, 31–42 (2025).

2. **Chen, Y.**, Chu, Y., van Rossum, P. S., Grassberger, C., Lin, S. H., Mohan, R. & Hobbs, B. P. Radiation-induced lymphopenia is a causal mediator of survival after chemoradiation therapy for esophagus cancer. *Advances in Radiation Oncology* 9, 101579 (2024).

3. Chu, Y., Zhu, C., Hobbs, B. P., **Chen, Y.**, van Rossum, P. S., Grassberger, C., Zhi, D., Lin, S. H. & Mohan, R. Personalized composite dosimetric score-based machine learning model of severe radiation-induced lymphopenia among patients with esophageal cancer. *International Journal of Radiation Oncology* Biology* Physics* 120, 1172–1180 (2024).

4. Damen, P. J., van Rossum, P. S., **Chen, Y.**, Abana, C. O., Liao, Z., Hobbs, B. P., Mohan, R., Blum-Murphy, M., Hofstetter, W. L. & Lin, S. H. Comparing 90-Day Postoperative Mortality After Neoadjuvant Proton-Based Versus Photon-Based Chemoradiotherapy for Esophageal Cancer. *International Journal of Particle Therapy* 11, 100012 (2024).

5. Hu, Z., Mohan, R., Chu, Y., Wang, X., van Rossum, P. S., **Chen, Y.**, Grayson, M. E., Gearhardt, A. G., Grassberger, C., Zhi, D., *et al.* Clinical Translation of a Deep Learning Model of Radiation-Induced Lymphopenia for Esophageal Cancer. *International Journal of Particle Therapy* 13, 100624 (2024).

6. Fradley, M. G., Nguyen, N. H., Madnick, D., **Chen, Y.**, DeMichele, A., Makhlin, I., Dent, S., Lefebvre, B., Carver, J., Upshaw, J. N., *et al.* Adverse cardiovascular events associated with cyclin-dependent kinase 4/6 inhibitors in patients with metastatic breast cancer. *Journal of the American Heart Association* 12, e029361 (2023).

7. Ebied, A. M., Rattanasuwan, T., **Chen, Y.** & Khoury, A. P. Albumin utilization in spontaneous bacterial peritonitis. *Journal of pharmacy practice* 35, 546–550 (2022).

8. Jing, Y., Chen, X., Li, K., Liu, Y., Zhang, Z., **Chen, Y.**, Liu, Y., Wang, Y., Lin, S. H., Diao, L., *et al.* Association of antibiotic treatment with immune-related adverse events in patients with cancer receiving immunotherapy. *Journal for immunotherapy of cancer* 10, e003779 (2022).

9. Mosley, S. A., Kim, S., El Rouby, N., Lingineni, K., Esteban, V. V., Gong, Y., **Chen, Y.**, Estores, D., Feng, K., Kim, H., *et al.* A randomized, cross-over trial of metoprolol succinate formulations to evaluate PK and PD end points for therapeutic equivalence. *Clinical and Translational Science* 15, 1764–1775 (2022).

10. Yu, Z., Yang, X., **Chen, Y.**, Fang, R., Hogan, W. R., Gong, Y. & Wu, Y. *Identify Cancer Patients at Risk for Heart Failure using Electronic Health Record and Genetic Data* in *2022 IEEE 10th International Conference on Healthcare Informatics* (*ICHI*) (2022), 138–142.

11. Lee, C. R., Thomas, C. D., Beitelshees, A. L., Tuteja, S., Empey, P. E., Lee, J. C., Limdi, N. A., Duarte, J. D., Skaar, T. C., **Chen, Y.**, *et al.* Impact of the CYP2C19* 17 allele on outcomes in patients receiving genotype-guided antiplatelet therapy after percutaneous coronary intervention. *Clinical Pharmacology & Therapeutics* 109, 705–715 (2021).

12. Mehanna, M., **Chen, Y.**, Gong, Y., Handberg, E., Roth, B., De Leon, J., Smith, S. M., Harrell, J. G. & Cooper-DeHoff, R. M. Optimizing Precision of Hypertension Care to Maximize Blood Pressure Control: A Pilot Study Utilizing a Smartphone App to Incorporate Plasma Renin Activity Testing. *Clinical and Translational Science* 14, 617–624 (2021).

13. Ebied, A. M., Jessee, J., **Chen, Y.**, Konopack, J., Radhakrishnan, N. & DeRemer, C. E. Factors influencing Prescribers' decision for extending venous thromboembolism prophylaxis in the medical patient population following hospitalization. *TH Open* 4, e218–e219 (2020).

14. Ebied, A. M., Li, T., Axelrod, S. F., Tam, D. J. & **Chen, Y.** Intravenous unfractionated heparin dosing in obese patients using anti-Xa levels. *Journal of Thrombosis and Thrombolysis* 49, 206–213 (2020).

15. Fradley, M. G., Nguyen, N., **Chen, Y.**, Guha, A., Upshaw, J. N., Ky, B. & Gong, Y. Cardiovascular toxicities of cyclin dependent kinase (cdk) 4/6 inhibitors in metastatic breast cancer patients. *Circulation* 142, A16720–A16720 (2020).

16. Keeley, E. C., Villanueva, M., **Chen, Y.**, Gong, Y., Handberg, E. M., Smith, S. M., Pepine, C. J. & Cooper-DeHoff, R. M. Attended vs unattended systolic blood pressure measurement: a randomized comparison in patients with cardiovascular disease. *The Journal of Clinical Hypertension* 22, 1987–1992 (2020).

17. Venugopalan, V., Nys, C., Hurst, N., **Chen, Y.**, Bruzzone, M., Cherabuddi, K., Iovine, N., Liu, J., Al-Shaer, M. H., Scheetz, M. H., *et al.* Use of therapeutic drug monitoring to characterize cefepime-induced neurotoxicity. *bioRxiv*, 2020–08 (2020).

18. Yang, G., Williams, R., Wang, L., Farhadfar, N., **Chen, Y.**, Loiacono, A. T., Bian, J., Holliday, L. S., Katz, J. & Gong, Y. Medication-Related Osteonecrosis of the Jaw in Cancer Patients: Result from the OneFlorida Clinical Research Consortium. *Journal of Bone and Mineral Research* 37, 2466–2471 (2020).

19. Archampong, T., Ojewale, O., Bears, K., **Chen, Y.**, Lartey, M., Sagoe, K. W., Obo-Akwa, A., Gong, Y., Langaee, T. & Kwara, A. Brief report: relationship between ABCC4 SNPs and hepatitis B virus suppression during tenofovir-containing antiretroviral therapy in patients with HIV/HBV coinfection. *JAIDS Journal of Acquired Immune Deficiency Syndromes* 82, 421–425 (2019).

20. Yang, G., Singh, S., **Chen, Y.**, Hamadeh, I. S., Langaee, T., McDonough, C. W., Holliday, L. S., Lamba, J. K., Moreb, J. S., Katz, J., *et al.* Pharmacogenomics of osteonecrosis of the jaw. *Bone* 124, 75–82 (2019).

21. Wazzan, T., Kashtwari, D., Almaden, W. F., Gong, Y., **Chen, Y.**, Moreb, J. & Katz, J. Radiographic bone loss and the risk of medication-related osteonecrosis of the jaw (MRONJ) in multiple myeloma patients—A retrospective case control study. *Special Care in Dentistry* 38, 356–361 (2018).

22. Hu, S., Chen, X., Liao, J., **Chen, Y.**, Zhao, C. & Zhang, Y. CAM: A quality control pipeline for MNase-seq data. *PloS one* 12, e0182771 (2017).

Submitted Manuscripts

1. **Chen, Y.**, Zhou, J., Chu, Y., Lin, S. H., Mohan, R., Wei, P. & Hobbs, B. P. Mediation Multi-State Model with Bayesian Model Averaging: Revealing Radiation-Induced Immunosuppression Mediated Impact on Cancer Survival (2025).
2. **Chen, Y.**, Chu, Y., Lin, S. H., Mohan, R., & Hobbs, B. P. Lymphocyte Kinetics Impact the Overall Survival of Esophageal Cancer Patients Receiving Chemoradiation Therapy (2024).

Contributed Presentations

2025: Bayesian Multi-State Mediation Model Elucidates the Impact of Cancer Immunity on Multiple Oncology Endpoints; Joint Statistical Meetings

2023: Informative Bayesian Survival Modeling in Studies with Time-to-Event Endpoint; The American Statistical Association, New Jersey and Princeton-Trenton Chapters.

2023: Radiation-Induced Lymphopenia is a Causal Mediator of Esophagus Cancer Survival; The American Association of Physicists in Medicine 65th Annual Meeting & Exhibition.

Conference Posters

2024: Quantifying the impact of immunosuppression dynamics during chemoradiation on cancer survival using TGD model; Society of Decision Professionals Annual Conference

2023: Informative Bayesian Survival Modeling in Studies with Time-to-Event Endpoint; The American Statistical Association, New Jersey and Princeton-Trenton Chapters.

2023: Radiation-Induced Lymphopenia is a Causal Mediator of Esophagus Cancer Survival; The American Association of Physicists in Medicine 65th Annual Meeting & Exhibition.

2023: Lymphocyte kinetics impact the overall survival of esophageal cancer patients receiving chemoradiation; The Stat4Onc Annual Symposium.

Professional Service

Ad-Hoc Peer Reviewer

o Statistical science/research journals:
  - Statistics in Medicine;
  - The New England Journal of Statistics in Data Science;
  - Computational Statistics and Data Analysis;
o Health science/research journals:
  - American Heart Journal Plus: Cardiology Research and Practice;
  - Health Science Reports;
  - Cancer Management and Research.

Grants

Pending

o Harnessing Precision Proton Therapy to Enhance Cancer Outcomes: From Mechanistic Insight to Clinical Translation
  - Agency: NIH P01
  - Role: Co-I
  - PI: Steven H. Lin

Certificate and Award

2024: Advance Data Science Certificate; University of Texas Health Science Center at Houston

2023: John R. Cameron Early-Career Investigators Finalist; The American Association of Physicists in Medicine Annual Meeting

2023: Poster Award; The Stat4Onc Annual Symposium 2023

2014: Excellent Dissertation Defense; School of Life Science and Technology, Tongji University

2014: Special Award of Merit; Shanghai Key Laboratory of Signaling and Disease Research

Honors

Translator of "Managing Your Biological Data with Python" Chinese version: Used as an optional textbook of Bioinformatics Computing with Python offered by Bioinformatics Department in Tongji University.

Honor of Excellent Member: Shanghai Key Laboratory of Signaling and Disease Research, 2012.

Cover illustrations:
o Genome Research February 2022; 32(2) https://genome.cshlp.org/content/32/2.cover-expansion
o Genome Research November 2018; 28(11) https://genome.cshlp.org/content/28/7.cover-expansion
o Genome Research February 2014; 24(2) https://genome.cshlp.org/content/24/2.cover-expansion