

# Leena Choi, Ph.D.

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Vanderbilt University School of Medicine  
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## EDUCATION

2005            Ph.D. in Biostatistics  
Johns Hopkins University, Bloomberg School of Public Health, Baltimore, MD.  
Dissertation: *Modelling biomedical data and the foundations of bioequivalence.*  
Advisor: Brian S. Caffo  
Co-advisor: Charles Rohde

1995            M.S. in Pharmacy  
Seoul National University, College of Pharmacy, Seoul, Korea.  
Thesis: *Solubilization of Cyclosporin A using liposomes and mixed micelles, and pharmacokinetics after intravenous administration.*  
Advisor: Chong-Kook Kim

1988            B.S. in Pharmacy  
Seoul National University, College of Pharmacy, Seoul, Korea.

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## LICENSURE AND CERTIFICATION

1995            Registered air environmental engineer, Korea (7/24/1995).

1989            Registered pharmacist, Korea (3/13/1989).

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## ACADEMIC APPOINTMENTS

2020 – Present    Professor (with tenure)  
Department of Biostatistics, Vanderbilt University School of Medicine, Nashville, TN.

2022 – Present    Professor (secondary)  
Department of Biomedical Informatics, Vanderbilt University School of Medicine, Nashville, TN.

2013 – 2020       Associate Professor (with tenure)  
Department of Biostatistics, Vanderbilt University School of Medicine, Nashville, TN.

2017 – 2020       Associate Professor (secondary)  
Vanderbilt University School of Nursing, Nashville, TN.

2005 – 2013       Assistant Professor  
Department of Biostatistics, Vanderbilt University School of Medicine, Nashville, TN.

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## EMPLOYMENT

2000 – 2005	Statistical Consultant Biostatistics Consulting Center, Department of Biostatistics, Johns Hopkins University, Bloomberg School of Public Health, Baltimore, MD.
1995 – 1998	Regulatory Agent Korea Food and Drug Administration, Seoul, Korea.
1990 – 1991	Pharmacist Daehak Drug Store, Seoul, Korea.
1989 – 1990	Reporter The Journal of Clinical Pharmacy, Seoul, Korea.

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## PROFESSIONAL ORGANIZATIONS

2006 – Present	The American Statistical Association (ASA).
2006 – Present	The Eastern North American Region (ENAR), the International Biometric Society (IBS).

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## PROFESSIONAL ACTIVITIES

### Intramural

<b>Faculty Senate</b>	Senator, Vanderbilt University (2018–2021). Chair, Faculty Senate Academic Policies and Services Committee (2019–2021).
<b>Program</b>	Director, Vanderbilt Biostatistics Summer Internships for Undergraduates, Department of Biostatistics (2022–Present).
<b>Committee</b>	Member, Analytical Staff Promotions Committee, Department of Biostatistics (2022–Present). Member, Executive Committee, Department of Biostatistics (2020–Present). Member, Faculty Appointments and Promotions Committee, Department of Biostatistics (2020–Present). Member, Faculty Search Committee, Department of Biostatistics (2007–Present). Member, Resource Planning Committee, Department of Biostatistics (2020–2025). Member, Online Education Committee, Vanderbilt University (2019–2020). Member, Curriculum Management System Selection Committee, Vanderbilt University (2020). Chair, Allocation Committee (Resource Planning Committee since 2017), Department of Biostatistics (2012–2019). Member, Retreat Planning Committee, Department of Biostatistics (2018). Member, Graduate Admission Committee, Department of Biostatistics (2013–2014).
<b>DSMB</b>	Sleep Coach Intervention for Pediatric T1D Randomized Clinical Trial (Contact PI: Sarah S. Jaser, MPI: Lori Jordan) (2024–Present). Thrive! Positive psychology intervention to treat diabetes distress in teens with type 1 diabetes (T1D) (PI: Sarah S. Jaser) (2020–2023). Communication and coping: addressing mothers' needs to improve outcomes in adolescents with T1D (PI: Sarah S. Jaser) (2019–2023). The effect of short-term atorvastatin use on acute kidney injury following cardiac surgery (PI: Frederic T. Billings) (2009–2014).

## Extramural

### **ASA Chapter**

President, ASA Middle Tennessee Chapter (2025)

### **Session Chair**

- KISS Session I: Recent advances in the design and analysis of clinical trials, 2024 ICSA Applied Statistics Symposium, June 16–19, Nashville, TN.
- Session Focus I, Teaching, The 8th International R Users Conference 2012, June 12–15, Nashville, TN.

### **Grant Reviewer**

- NIH Center for Scientific Review SBIR/STTR Study Section, 2024/01 ZRG1 HSS-J (10), Small Business: Health Services and Systems (November 16-17, 2023).
- NIH Center for Scientific Review SBIR/STTR Study Section, 2023/05 ZRG1 HSS-J (10), Small Business: Health Services and Systems (March 15-16, 2023).
- NIH Center for Scientific Review Special Emphasis Panel, ZRG1 EMNR-D (56) R, PAR Panel: Pediatric and Obstetric Pharmacology and Therapeutics (April 19-20, 2021).
- National Cancer Institute Special Emphasis Panel, ZCA1 TCRB-O (C3), Pre-clinical Pharmacokinetic and Pharmacological Studies TEP (April 1, 2021).
- NIH Center for Scientific Review Special Emphasis Panel, ZRG1 CB-T(55), Maximizing Investigators' Research Award (MIRA) (November 19-20, 2020).
- NIH Center for Scientific Review, ZRG1 EMNR-S 55 R, Translational Research in Pediatric and Obstetric Pharmacology and Therapeutics Special Emphasis Panel (March 26, 2020).
- NIH Center for Scientific Review, ZRG1 EMNR-S 55 R, Translational Research in Pediatric and Obstetric Pharmacology and Therapeutics Special Emphasis Panel (March 22, 2018).
- NIH Center for Scientific Review, ZRG1 EMNR-D 55, Translational Research in Pediatric and Obstetric Pharmacology and Therapeutics Special Emphasis Panel (April 2, 2015).
- Brain Injury: TBI & Stroke [RRD1 and RRDB] Merit Review, Department of Veterans Affairs Rehabilitation Research and Development Service (Feb. 20 - 21, 2013).
- Scientific Review Group RRDBI, Department of Veterans Affairs Rehabilitation Research Brain Injury Panel (August 14, 2012).

### **Journal Reviewer**

Statistics in Medicine  
Journal of the Royal Statistical Society, Series B  
Journal of the Royal Statistical Society, Series C  
The R Journal  
Journal of Pharmacokinetics and Pharmacodynamics  
Medicine & Science in Sports & Exercise  
Journal of Physical Activity & Health  
International Journal of Behavioral Nutrition and Physical Activity  
American Journal of Preventive Medicine  
PLOS ONE  
Clinical Pharmacokinetics  
Research in Social and Administrative Pharmacy  
International Journal of Behavioral Nutrition and Physical Activity  
Journal of the American Medical Informatics Association  
Pharmaceutical Research

**Thesis Examiner** A Doctor of Philosophy, titled “Statistical methods for sleep stage detection using raw accelerometry data” submitted by Michelle Trevenen.  
School of Physics, Mathematics and Computing, Department of Mathematics and Statistics, The University of Western Australia (July 2020).

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## AWARDS

2021 IT Innovation Award 2019 - 2020. Department of Biostatistics, Vanderbilt University School of Medicine, Nashville, TN.

2019 Selected as Top Poster Designation in ASCPT 2019 Annual Meeting.

2005 Elected to Phi Beta Kappa Johns Hopkins University, Bloomberg School of Public Health, Baltimore, MD.

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## TEACHING ACTIVITIES

### Courses

2013 – 2022 Instructor  
Course: BIOS 372, BIOS 8372 *Bayesian Methods*.  
Biostatistics Graduate Program, Vanderbilt University, Nashville, TN.

2005 – 2007 Instructor  
Course: *Short Course for Clinical Pharmacology Fellows*.  
Division of Clinical Pharmacology, Department of Medicine, Vanderbilt University School of Medicine, Nashville, TN.

2000 – 2005 Teaching Assistant  
Department of Biostatistics, Johns Hopkins University, Bloomberg School of Public Health, Baltimore, MD.

### Internal Seminars, Lectures, and Workshops

Oct. 24, 2017 Bayesian Hierarchical Modeling.  
HSR Work in Progress (WIP) Biostatistics seminar, Vanderbilt University Medical Center.

May 1, 2013 Measurement Errors in Blood Sampling Time in Population Pharmacokinetic Models.  
Department of Biostatistics, Vanderbilt University School of Medicine.

Nov. 12, 2008 A Bayesian Hierarchical Nonlinear Mixture Model in the Presence of Informative Outliers in a Population Pharmacokinetic Study.  
Department of Biostatistics, Vanderbilt University School of Medicine.

July 17, 2008 Introduction to Bayesian Methods.  
Department of Biostatistics MS Biostatisticians Workshop, Vanderbilt University School of Medicine.

May 16, 2008 Adaptive Bayesian Designs in Dose-finding Studies.  
VICC Cancer Biostatistics Workshop, Vanderbilt University School of Medicine.

Nov. 07, 2007 *P*-values, Likelihoods and Measuring Statistical Evidence.  
Department of Biostatistics, Vanderbilt University School of Medicine.

- Sep. 07, 2007      How to use Bayesian Methods in Clinical Research.  
GCRC Research Skills Workshop, Vanderbilt University School of Medicine.
- Nov. 01, 2005      Pharmacokinetics Pharmacodynamics, and Statistical Modelling.  
Grand Rounds in Clinical Pharmacology, Department of Medicine, Vanderbilt University  
School of Medicine.
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## **MENTORING/SUPERVISING ACTIVITIES**

### **Research Supervision**

#### ***Primary Advisor***

- Marisa H. Blackman (Biostatistics Ph.D., 2021 – Present)  
Michael L. Williams (Biostatistics Ph.D., Graduated in 2022)  
Nathan T. James (Biostatistics Ph.D., Graduated in 2022)  
Ryan P. Moore (Biostatistics M.S., Graduated in 2020)  
Joshua Joseph DeClercq (Biostatistics M.S., Graduated in 2018)  
Liping Du (Biostatistics M.S., Graduated in 2013)

#### ***Research Mentor***

- Jingyuan Wu (Data Science M.S., 2021 – 2025)  
Xiaodi Ruan (Quantitative Methods M.S., 2022 – 2023)  
Hannah L. Weeks (Biostatistics Ph.D., 2018 – 2021)  
Rebecca L.-A. Hutchinson (Undergraduate student, Vanderbilt University, 2011 – 2012)  
Suzanne C. Ward (Undergraduate student, Vanderbilt University, 2011 – 2012)

### **Ph.D. Student Dissertation Committees**

- Hannah L. Weeks (Biostatistics Ph.D., Graduated in 2023)  
Ryan Jarrett (Biostatistics Ph.D., Graduated in 2021)  
Nathaniel David Mercaldo (Biostatistics Ph.D., Graduated in 2014)

### **Professional Supervision**

#### ***Vanderbilt Specialty Pharmacy Collaboration Plan, Vanderbilt University Medical Center***

- Joshua J. DeClercq (Biostatistics M.S, 2017 – Present)  
Nicolas Gargurevich (Biostatistics M.S, 2023 – Present)  
Elizabeth McNeer (Biostatistics M.S, 2025 – Present)  
Ryan P. Moore (Biostatistics M.S, 2020 – 2025)

#### ***Oncology Pharmacy Collaboration Plan, Vanderbilt University Medical Center***

- Elizabeth McNeer (Biostatistics M.S, 2022 – Present)

#### ***Learning Healthcare System, Vanderbilt University Medical Center***

- Cassandra Johnson (Biostatistics M.S, 2025 – Present)  
Yue Gao (Biostatistics M.S, 2022 – 2025)

#### ***Choi Lab, Vanderbilt University Medical Center***

- Cole Beck (Principal Application Developer B.S, 2011 – 2024)  
Elizabeth McNeer (Biostatistics M.S, 2018 – 2024)
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## RESEARCH PROGRAM

### Present and Completed Funding (selected)

- R61HL180327 (PI: Markham) 9/4/2025-8/31/2027  
CHERISH (duCHennE caRdiomyopathy mItigation Sglt2 inHibitor).  
Role: Biostatistician
- R01 HS030234 (PI: Stone) 09/30/2024 – 07/31/2029  
Adapting and Implementing Risk-Stratified Penicillin Allergy Evaluation in Key Outpatient Settings.  
Role: Co-investigator
- R01 EY031315 (PI: Kim) 09/01/2021 – 08/31/2026  
Ocular inflammatory Mediators in the Pathophysiology of Diabetic Retinopathy Effort.  
Role: Co-investigator
- PR221983 (PI: Neul) 09/30/2023 – 09/29/2025  
Umbrella Clinical Trial to Evaluate Repurpose Compounds in Rett Syndrome.  
Role: Co-investigator
- R01 HL144568 (PI: Okamoto) 03/01/2021 – 08/31/2024  
Automated Abdominal Binder for Orthostatic Hypotension Effort.  
Role: Co-investigator
- R01 GM132204 (PI: Kannankeril) 06/10/2019 – 03/31/2024  
Genomic Approaches for Predicting Drug Response.  
Role: Co-investigator
- R01 GM124109 (PI: Choi) 07/15/2017 – 03/31/2023  
System Construction for Population Pharmacokinetic and Pharmacodynamic Modeling Using Electronic Health Records: Toward Precision Medicine.  
Role: Principal Investigator
- P50 HD106446-01S1 (Contact PI: Kannankeril, Multi-PI: Choi) 05/01/2022 – 04/30/2023  
Administrative Supplements to Vanderbilt Integrated Center of Excellence in Maternal and Pediatric Precision Therapeutics (VICE-MPRINT).  
Role: Multiple Principal Investigator
- Doris Duke (PI: Van Driest) 07/01/2017 – 06/30/2022  
New Approaches to Precision Dosing for Special Populations.  
Role: Co-investigator
- R01 HD084461 (PI: Kannankeril) 08/01/2016 – 05/31/2022  
Pharmacogenetics and Personalized Medicine After Cardiac Surgery in Children.  
Role: Co-investigator
- PCORI CER-1306-01970 (PI: Archer) 02/01/2014 – 09/01/2018  
Comparative Effectiveness of Postoperative Management for Degenerative Spinal Conditions.  
Role: Biostatistician
- BWF 1015006 (PI: Van Driest) 09/01/2015 – 08/31/2018  
Leveraging Big Data for Small Patients.  
Role: Biostatistician
- DP3 DK097678 (PI: Jaser) 01/10/2013 – 06/30/2017  
Positive Psychology to Promote Adherence in Adolescents with Type 1 Diabetes.  
Role: Biostatistician

PhRMA 2013010010 (PI: Van Driest) 07/01/2013 – 06/30/2016  
Pharmacogenomics of Fentanyl and Dexmedetomidine in Children.  
Role: Biostatistician

R01CA143288 (PI: Murff) 07/01/2010 – 06/30/2014  
Long-Chain Fatty Acids, Oxidative Stress and Colorectal Neoplasm Risk.  
Role: Co-investigator

P01 HL092870 (PI: Blackwell) 01/19/2010 – 12/31/2014  
Mechanisms of Familial Pulmonary Fibrosis.  
Role: Co-investigator

R21 AG034412 (PI: Choi) 04/01/2011 – 03/31/2013  
Population Pharmacokinetic and Pharmacodynamic Models in the Presence of Outliers.  
Role: Principal Investigator

UL1 RR024975 (PI: Bernard) 10/01/2009 – 09/30/2011  
The Vanderbilt Institute for Clinical and Translational Research (VICTR).  
Role: Biostatistician

R01 DK069465 (PI: Buchowski) 04/01/2006 – 07/31/2010  
A Novel Approach to Predict Energy of Physical Activity.  
Role: Co-investigator

R01 HL082988 (PI: Buchowski) 04/01/2006 – 07/31/2010  
Physical Activity Energy Expenditure and Adolescent Obesity.  
Role: Co-investigator

R01 NS055670 (PI: Biaggioni) 04/01/2006 – 08/31/2010  
Autonomic Nervous System in Chronic Fatigue Syndrome.  
Role: Biostatistician

P01 GM031304 (PI: Stein) 10/01/2007 – 06/30/2008  
Determinants of Individual Responsiveness to Drugs.  
Role: Biostatistician

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## SOFTWARE

1. Du L, [Choi L](#), Beck C. **BElikelihood**: *Likelihood Method for Evaluating Bioequivalence*. 2024. An R package for implementing a likelihood method to present evidence for evaluating bioequivalence (BE) from studies conducted with commonly used crossover designs including a fully replicated, a partially replicated design, and a conventional 2x2 crossover design.
2. [Choi L](#). **ProfileLikelihood**: *Profile Likelihood for a Parameter in Commonly Used Statistical Models*. 2023. An R package for obtaining profile likelihoods for a parameter of interest in commonly used statistical models as well as plots for normalized profile likelihoods, the maximum profile likelihood estimates and the  $k^{th}$  likelihood support intervals.
3. [Choi L](#), Beck C, Weeks H. **medExtractR**: *Extraction of Medication Information from Clinical Text*. 2022. An R package for implementing a natural language processing (NLP) algorithm to extract medication dosing information (e.g., drug name, strength, dose amount, dose, frequency, intake time, dose change, and time of last dose) from electronic health records (EHRs).
4. [Choi L](#), Beck C, Weeks H, McNeer E, James N, Williams M. **EHR**: *Electronic Health Record (EHR) Data Processing and Analysis Tool*. 2022. An R package for processing and analyzing EHR data to perform diverse medication-related studies including pharmacokinetic/pharmacodynamic (PK/PD) analyses using data from EHR databases.

5. Choi L, Beck C, Liu Z, Moore R, Matthews C, Buchowski MS. *PhysicalActivity: Process Accelerometer Data for Physical Activity Measurement*. 2020. An R package for implementing accelerometer wear and nonwear time classification algorithm as well as mail delivery detection algorithm.

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## PUBLICATIONS

### Peer-Reviewed Publications

1. Fann J, Murray M, DeClercq J, Choi L, Whelchel K. Implementing an electronic flowsheet for biologics requiring infusions and injections in inflammatory bowel disease. *J Am Pharm Assoc (2003)*. 2026 Mar 7:103072. doi: 10.1016/j.japh.2026.103072. Epub ahead of print. PMID: 41802600.
2. Looney B, Bui T, DeClercq J, Whelchel K, Choi L, Zuckerman A. The impact of early oral anticancer medication monitoring through electronic patient assessments. *Am J Health Syst Pharm*. 2026 Mar 7:zxag070. doi: 10.1093/ajhp/zxag070. Epub ahead of print. PMID: 41793760.
3. Rolsma SL, Blackman M, Beck C, Dbouk A, Morovia F, Glover F, Ess G, Dohler K, Bridges B, Choi L, Creech CB. Population Pharmacokinetic Modeling and Target Attainment of Cefepime in Critically Ill Pediatric Patients. *Open Forum Infect Dis*. 2026 Feb 16;13(2):ofag069. doi: 10.1093/ofid/ofag069. PMID: 41767633; PMCID: PMC12947848.
4. Cruchelow KR, Layne S, DeClercq J, Choi L, Zuckerman AD. Comparing rates of primary medication nonadherence and turnaround time among patients at a health system specialty pharmacy compared with external specialty pharmacies. *J Manag Care Spec Pharm*. 2026 Mar;32(3):300-311. doi: 10.18553/jmcp.2026.32.3.300. PMID: 41760571; PMCID: PMC12948760.
5. Zuckerman AD, Thomas KC, Vest MH, Rector A, Lopez-Medina AI, Stutsky M, St James G, Gazda NP, Dornbush NL, Liang D, Simonson D, Costigan B, O'Reilly EA, Plaia G, Choi L, Brown M, DeClercq J. Finding consensus on meaningful reporting measures for rheumatoid arthritis: Results from a modified Delphi study. *J Manag Care Spec Pharm*. 2026 Mar;32(3):360-373. doi: 10.18553/jmcp.2026.32.3.360. PMID: 41760564; PMCID: PMC12948757.
6. Wright AP, Choi L, Nairon KG, Gatto CL, Dear ML, Van Winkle G, Lagalante S, Neal EB, Wright A, Rice TW; Vanderbilt Center for Learning Healthcare. Interruptive versus Non-Interruptive Reminders for Statin tHerApy in Primary Care (INIRSHA-PC): protocol and statistical analysis plan for a randomised clinical trial. *BMJ Open*. 2026 Jan 28;16(1):e108123. doi: 10.1136/bmjopen-2025-108123. PMID: 41605591; PMCID: PMC12853433.
7. Hayes C, Rodriguez K, Chelewski R, Cruchelow K, Zuckerman AD, Lynch B, Moore R, Choi L. Financial burden of once daily extended-release tacrolimus and twice daily immediate-release tacrolimus for kidney transplant recipients. *Explor Res Clin Soc Pharm*. 2025 Dec 24;21:100701. doi: 10.1016/j.rcsop.2025.100701. PMID: 41584684; PMCID: PMC12825074.
8. Kim SJ, Gangaputra SS, Al Hussein Al Awamlh S, Choi L, McNeer EA, Sheng J. INflammatory MediatorS in the PathophysIology of Diabetic RETinopathy Study: Baseline Analysis of 24 Aqueous Cytokines. *Ophthalmol Sci*. 2025 Nov 11;6(2):101003. doi: 10.1016/j.xops.2025.101003. PMID: 41532138; PMCID: PMC12794495.
9. Schneider M, Banks A, Zuckerman A, DeClercq J, Choi L, Cruchelow KR. Retrospective review of lymphocyte changes when switching between fumarates in patients with multiple sclerosis. *Mult Scler Relat Disord*. 2026 Mar;107:106968. doi: 10.1016/j.msard.2026.106968. Epub 2026 Jan 2. PMID: 41512726.

10. Donald DR, Zuckerman AD, Dee K, Gargurevich N, Choi L, Oboh S, Renfro CP. Optimizing marib-avir management: The role of health system specialty pharmacies in access, monitoring, and waste reduction. *J Manag Care Spec Pharm*. 2025 Oct;31(10):997-1005. doi: 10.18553/jmcp.2025.31.10.997. PMID: 41004205; PMCID: PMC12467757.
11. Winget MD, Sowell H, Shultes K, Sawyer J, Jayani-Kosarzycki RV, Biltibo E, Jallouk A, Jerkins J, Dholaria B, Kim TK, Kassim A, Oluwole O, Savani B, Chinratanalab W, Sengsayadeth S, McNeer E, Choi L, Gilmore R, Gatwood K, Orton L. Impact of Granulocyte Colony Stimulating Factor Use Following CD-19 Chimeric Antigen Receptor T-Cell Therapy. *Transplant Cell Ther*. 2026 Jan;32(1):48-58. doi: 10.1016/j.jtct.2025.09.017. Epub 2025 Sep 13. PMID: 40953732.
12. Raymond BL, Allen BFS, Freundlich RE, McEvoy MD, Parrish CG, Ruble SR, Scharfman KH, Wanderer JP, Gao Y, Choi L, Dear ML, Master H, Rice TW, Kertai MD; Vanderbilt Learning Healthcare System Platform Investigators. Impact of Perioperative Ketamine on Enhanced Recovery After abdominal Surgery (IMPAKT ERAS): a pragmatic randomised single-cluster trial. *Br J Anaesth*. 2025 Dec;135(6):1770-1778. doi: 10.1016/j.bja.2025.08.001. Epub 2025 Sep 3. PMID: 40903379; PMCID: PMC12799394.
13. Parrish C, Baird D, Redd T, Moore RP, Choi L, Zuckerman AD, Cruchelow KR. Barriers to growth hormone access in pediatric patients at an academic medical center. *Am J Health Syst Pharm*. 2026 Mar 9;83(6):272-280. doi: 10.1093/ajhp/zxaf232. PMID: 40891305.
14. Renfro CP, Fann J, DeClercq J, Baggett RD, Nichols P, Kozlicki M, Choi L, Zuckerman AD. Ustekinumab infusion to subcutaneous transition: Coordinating care and identifying potential gaps. *J Manag Care Spec Pharm*. 2025 Aug;31(8):764-771. doi: 10.18553/jmcp.2025.31.8.764. PMID: 40704856; PMCID: PMC12288721.
15. Carver AB, Edmonds C, Whelchel K, Moore R, Choi L, Gillis LA. Pediatric and Adolescent Hepatitis C Care Cascade and Real-World Treatment Outcomes Utilizing an Integrated Health System Specialty Pharmacy Model. *J Pediatric Infect Dis Soc*. 2025 May 13;14(5):piaf042. doi: 10.1093/jpids/piaf042. PMID: 40326439; PMCID: PMC12123190.
16. Looney BD, White SG, DeClercq J, Zuckerman AD, Choi L, Shah NB, Whelchel KW. Pharmacist tailored monitoring for patients initiating encorafenib and binimetinib combination therapy. *J Oncol Pharm Pract*. 2025 Apr 23;10781552251334995. doi: 10.1177/10781552251334995. Epub ahead of print. PMID: 40267332.
17. Dodson K, Livezey S, Denson B, Choi L, DeClercq J, Zuckerman AD, Johnson K. Deutetrabenazine treatment outcomes with doses above U.S. Food and Drug Administration maximum approved doses in Huntington's disease chorea: A dual-site analysis. *J Huntingtons Dis*. 2025 May;14(2):140-148. doi: 10.1177/18796397251323293. Epub 2025 Mar 23. PMID: 40123209.
18. Bui T, Looney B, DeClercq J, Lynch B, Whelchel K, Nelson S, Choi L, Zuckerman AD. Implementation of an electronic early treatment assessment and monitoring questionnaire for oral anticancer medication. *Am J Health Syst Pharm*. 2025 Sep 23;82(19):e827-e836. doi: 10.1093/ajhp/zxaf060. PMID: 40119632.
19. Wyatt H, White S, Holloway H, DeClercq J, Zuckerman AD, Choi L, Xue M, Carr K, Challgulla S, Yang K, Renfro C. Integrated health system pharmacy role in adherence, persistence, and adverse effect management for oral chronic lymphocytic leukemia therapy. *J Manag Care Spec Pharm*. 2025 Mar;31(3):253-261. doi: 10.18553/jmcp.2025.31.3.253. PMID: 40021460; PMCID: PMC11871158.
20. Bowles MG, Zuckerman AD, DeClercq J, Choi L, Ellis M, Renfro CP. Getting to specialty treatment in dermatologic inflammatory conditions: Treatment requirements and patient journey. *J Manag Care Spec Pharm*. 2025 Feb 1;31(2):147-156. doi: 10.18553/jmcp.2025.31.2.147. PMID: 39912811; PMCID: PMC11852794.

21. Winget MD, Gatwood K, Jayani R, Biltibo E, Jallouk A, Jerkins J, Dholaria B, Kim TK, Savani B, Kassim A, McNeer E, [Choi L](#), Orton L. Evaluating Antibiotic De-escalation for Autologous Stem Cell Transplant Patients With Febrile Neutropenia in a Real-World Clinical Setting. *Transplant Cell Ther.* 2024 Oct;30(10):1031.e1-1031.e9. doi: 10.1016/j.jtct.2024.07.020. Epub 2024 Jul 27.
22. Bryan ED, Renfro CP, Anguiano RH, Kumor L, DeClercq J, [Choi L](#), Zuckerman AD. Evaluating patient-reported adherence and outcomes in specialty disease states: A dual-site initiative. *J Manag Care Spec Pharm.* 2024 Jul;30(7):710-718. doi: 10.18553/jmcp.2024.30.7.710.
23. Jafari E, Blackman MH, Karnes JH, Van Driest SL, Crawford DC, [Choi L](#), McDonough CW. Using electronic health records for clinical pharmacology research: Challenges and considerations. *Clin Transl Sci.* 2024 Jul;17(7):e13871. doi: 10.1111/cts.13871.
24. Gilmore RM, Abernathy K, Shultes K, Eplin DD, Orton L, Kassim A, Sengsayadeth S, Chinratanalab W, Kim TK, Dholaria B, Jayani RV, Savani BN, McNeer E, [Choi L](#), Gatwood K. Efficacy and safety of outpatient fludarabine, cyclophosphamide, and rituximab based allogeneic hematopoietic cell transplantation in adults with severe aplastic anemia. *Bone Marrow Transplant.* 2024 Sep;59(9):1275-1279. doi: 10.1038/s41409-024-02323-1. Epub 2024 Jun 15.
25. Looney B, Crumb J, White S, Jones G, Moore RP, [Choi L](#), Zuckerman AD, Whelchel K. Financial impact of integrated specialty pharmacy efforts to avoid oral anticancer medication waste. *J Manag Care Spec Pharm.* 2024 May;30(5):465-474. doi: 10.18553/jmcp.2024.30.5.465.
26. Georgieva D, Markley B, DeClercq J, [Choi L](#), Zuckerman AD. Cost avoidance from health system specialty pharmacist interventions in patients with multiple sclerosis. *J Manag Care Spec Pharm.* 2024 Apr;30(4):336-344. doi: 10.18553/jmcp.2024.30.4.336.
27. Barnes JP, Dial H, Owens W, DeClercq J, [Choi L](#), Shah NB, Zuckerman AD, Johnson K. Adherence and discontinuation of prescription cannabidiol for the management of seizure disorders at an integrated care center. *Epilepsy Res.* 2024 Feb;200:107300. doi: 10.1016/j.eplepsyres.2024.107300. Epub 2024 Jan 12.
28. Cruchelow KR, Peter ME, Chakrabarti A, Gipson HM, Gregory WT, DeClercq J, [Choi L](#), Tanner SB. Denosumab treatment lapses, discontinuation, and off-treatment fracture risk: A retrospective study of patients with osteoporosis in a real-world clinical setting. *Bone.* 2023 Dec;177:116925. doi: 10.1016/j.bone.2023.116925. Epub 2023 Oct 4.
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#### **Letters to Editor (Response)**

[Choi L](#), Liu Z, Matthews C, Buchowski MS. Response. *Med Sci Sports Exerc*. 2011; 43(5):933.

#### **Nonpeer-Reviewed Publication**

1. Wu J, Ruan X, McNeer E, Rossow KM, [Choi L](#). Developing a natural language processing system using transformer-based models for adverse drug event detection in electronic health records. *medRxiv*. Published online January 1, 2024:2024.07.09.24310100. doi: 10.1101/2024.07.09.24310100.
2. Blume JD, [Choi L](#). Likelihood based study designs for time-to-event endpoints. *arXiv*. 2017. arXiv:1711.01527.

## **PRESENTATIONS**

### **Invited**

1. [Choi L](#). Likelihood Approach for Evaluating Bioequivalence and Biosimilarity. The 7th International Symposium on Biopharmaceutical Statistics. March 08, 2024.
2. [Choi L](#). Building Better Medication Dose Data from Electronic Health Records for Pharmacoepidemiology Studies. Eastern North American Region/International Biometric Society Spring Meeting. Virtual Event. March 15, 2021.
3. [Choi L](#). Use of Electronic Health Records and a Biobank for Pharmacogenomic Studies: Promises and Challenges. Eastern North American Region/International Biometric Society Spring Meeting, Nashville, TN. March 23, 2020.
4. [Choi L](#). How can Electronic Health Records be More Useful as Real-World-Data. AAPS PharmSci 360 2019, San Antonio, TX. November 5, 2019.
5. [Choi L](#), Beck C, Liu Z, Buchowski MS. Processing Accelerometer Data with an Automated Algorithm – an R package PhysicalActivity. 2019 Joint Statistical Meetings, Denver, CO. July 31, 2019.

6. Choi L. Use of Real World Data for Pharmacogenomic Studies.  
EMBL-EBI Industry Programme Workshop, Boston, MA. June 17, 2019.
7. Choi L. How Well do You Know about Statistical Analysis in Your Research?  
School of Dentistry, Seoul National University, Seoul, Korea. June 10, 2019
8. Choi L. Pharmacogenomics in Real-world Analysis: Promise and Challenge in Using Electronic Health Records for Medication-related Studies.  
School of Pharmacy, Seoul National University, Seoul, Korea. June 10, 2019
9. Choi L. Medication-based Research using Electronic Health Records Data.  
2018 Joint Biostatistical Conference: Ministry of Food & Drug Safety, Korean Society of Clinical Development, Biostatistics Research Section, Korean Statistical Society & Korea Region, International Biometric Society, Seoul, Korea. November 16, 2018.
10. Choi L. Practical Recommendations for Sampling Time with Errors in Population PK Studies, and Designing Sampling Times.  
LG Life Science, Daejeon, Korea. December 15, 2015.
11. Choi L. Pharmacometrics in Clinical Pharmacy and Its Application.  
2015 Fall International Convention of the Pharmaceutical Society of Korea. October 22-23, Daegu, Korea. Oct. 23, 2015.
12. Choi L. Statistical Methods for Evaluating Biosimilarity and Bioequivalence.  
Symposium: Integrated Approaches of Pharmaceutical Technologies for New Drug Development, The Korean Society of Pharmaceutical Sciences and Technology, Seoul, Korea. April 17, 2015.
13. Choi L. Population Pharmacokinetic and Pharmacogenetic Studies using Electronic Medical Records: Personalized Medicine Perspective.  
Samsung Genome Institute, Seoul, Korea. April 15, 2015.
14. Choi L, Ward SC, Schnelle JF, Buchowski MS. A New Accelerometer Wear and Nonwear Time Classification Algorithm.  
Eastern North American Region/International Biometric Society Spring Meeting, Orlando, FL. March 12, 2013.
15. Choi L. Useful Statistical Concepts and Methods in Biomedical Research.  
Department of Biomedical Sciences, College of Medicine, The Catholic University of Korea, Seoul, Korea. September 20, 2012.
16. Choi L. Useful Statistical Methods in Pharmacy Research and Pharmacometrics.  
College of Pharmacy, Ajou University, Suwon, Korea. September 18, 2012.
17. Choi L. Case Studies for Leveraging Electronic Medical Records in Population Pharmacokinetic and Pharmacogenetic Studies.  
Department of Pharmacology and Clinical Pharmacology, College of Medicine and Hospital, Seoul National University, Seoul, Korea. September 13, 2012.
18. Choi L, Kohli U, Caffo BS, Stein CM. A Bayesian Hierarchical Nonlinear Mixture Model in the Presence of Artfactual Outliers in a Population Pharmacokinetic Study.  
Eastern North American Region/International Biometric Society Spring Meeting, Miami, FL. March 21, 2011.
19. Choi L. Basic Statistical Concepts and Methods in Pharmacy Research.  
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20. Choi L. Statistical Problems to Avoid in Medical Research.  
College of Dentistry, Seoul National University, Seoul, Korea. December 09, 2010.
21. Choi L. A Bayesian Hierarchical Nonlinear Mixture Model in the Presence of Informative Outliers in a Population Pharmacokinetic Study.  
Department of Biostatistics, Johns Hopkins University, Bloomberg School of Public Health, Baltimore, MD. April 23, 2008.
22. Choi L. Statistical Methods for Estimating Drug Concentrations and Viral Loads in the Prostate Gland and the Seminal Vesicle.  
U.S. Food and Drug Administration, Silver Spring, MD. March 23, 2005.

### **Contributed**

1. Choi L. Medication Data Extraction Algorithms: A Foundation for Post-marketing Population Pharmacokinetic and Pharmacodynamic Studies using Electronic Health Records.  
ASCP 2019 Annual Meeting, Washington D.C. March 13, 2019.
2. Choi L. Use of Electronic Medical Records and a DNA Biobank to Develop Population Pharmacokinetic and Pharmacodynamic Models.  
AAPS 2018 Annual Meeting PharmSci360, Washington D.C. November 5, 2018.
3. Choi L. Time Measurement Error in Population Pharmacokinetic Studies.  
World Conference on Pharmacometrics, Seoul, Korea. September 6, 2012.
4. Choi L. A Bayesian Hierarchical Nonlinear Mixture Model in the Presence of Artifactual Outliers in a Population Pharmacokinetic and Pharmacodynamic Study.  
International Biometric Conference, Kobe, Japan. August 27, 2012.
5. Choi L. Measurement Errors in Times for Blood Sampling or Drug Administration in Population Pharmacokinetic Models.  
Joint Statistical Meetings, San Diego, CA. August 2, 2012.
6. Choi L., Caffo BS, Rohde C. A Survey of the Likelihood Approach to Bioequivalence Trials.  
Eastern North American Region/International Biometric Society Spring Meeting 2008 March 16-19, Arlington, VA. March 18, 2008.