Dr. Janick Georg Weberpals

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 GitHub Profile

 LinkedIn Profile

EDUCATION

- **Roche Diagnostics & Helmholtz AI Munich** — *Penzberg/Munich, Germany*
  Postdoctoral Fellow, Data Science & Machine Learning — 2018 - 2020

- **Heidelberg University, Medical Faculty** — *Heidelberg, Germany*
  Ph.D. Epidemiology (summa cum laude) — 2015-2019

- **German Cancer Research Center (DKFZ)** — *Heidelberg, Germany*
  Board Certification as Specialized Pharmacist, Drug Information — 2015-2018

- **Philipps-University Marburg** — *Marburg, Germany*
  Pharmacy (License as registered pharmacist (RPh) in Germany) — 2010-2015

- **Biotechnologisches Gymnasium, Kaethe-Kollwitz Schule** — *Bruchsal, Germany*
  Abitur (Major: Biotechnology, Bioinformatics, Chemistry) — 2009

PROFESSIONAL POSITIONS

- **AstraZeneca** — *Munich, Germany*
  Associate Director RWE (R&D Oncology Data Science) — 2024-present
  − Hands-on development and application of innovative statistical and machine learning methodology and software to support real-world evidence studies in oncology.

- **Harvard Medical School** — *Boston, MA, United States*
  Instructor in Medicine (Faculty; vglb. zu Juniorprofessur in Deutschland) — 2022-2024
  − Leading a research group that focuses on the development of novel statistical, machine and deep learning models in multimodal healthcare data to evaluate and make causal inferences about drug effects in cancer patient populations

- **Brigham and Women's Hospital** — *Boston, MA, United States*
  Investigator — 2022-2024
  − Member, Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine
  − Establishing transparent and reproducible programming workflows using git and automated CI/CD pipelines via GitLab repositories and teaching R programming courses

- **Hoffman-La Roche** — *Basel, Switzerland*
  Data Scientist (Data Analytics & Imaging, Personalized Healthcare) — 2020-2022
  − Scientific lead of work streams aiming to link, integrate and evaluate multimodal data (electronic health records, insurance claims, imaging, natural language) using machine and deep learning approaches to support regulatory-grade real-world evidence studies

- **Roche Diagnostics** — *Penzberg, Germany*
  Postdoctoral Fellow — 2018-2020
  − Academic advisor: Prof. Dr. Dr. Fabian Theis (Helmholtz AI Munich)
  − Developed deep learning-based algorithms and prognostic scores to improve data-driven therapy decision making and expediting clinical drug development
  − Attracted intramural research funding to advance AI in health data analytics & drug development and grow the team with M.Sc. & Ph.D. students in collaboration with Munich School for Data Science (MUDS)

- **German Cancer Research Center (DKFZ)** — *Heidelberg, Germany*
  Doctoral Researcher — 2015-2018
  − Management and analysis of national and international cancer registry database linkages to study drug repurposing in oncology

- **University of Florida** — *Gainesville, FL, United States*
  Doctoral Researcher — 2014-2015
  − Contributed to a multidisciplinary project to develop an EHR-based predictive risk model to prevent adverse events among hospitalized patients. The model was implemented in select US hospitals

Honors & Awards

- **Summa cum laude** *2019*
  Ph.D. thesis in Epidemiology, Medical Faculty, Heidelberg University

- **Best national Ph.D. thesis** *2018*
  German Association for Medical Informatics, Biometry and Epidemiology (GMDS) e.V.

- **Stephan-Weiland Award (1st prize)** *2018*
  Early Career Award For Best Paper, German Society for Epidemiology (DGEpi) e.V.

- **Poster Award** *2017*
  Best poster presentation, Helmholtz International Graduate School annual research showcase day

- **Travel Grant** *2017*
  International Society for Pharmacoepidemiology (ISPE) Scholarship Recipient

- **Scholarship (competitive)** *2017*
  German Academic Exchange Service (DAAD)

- **Travel Grant** *2016*
  International Society for Pharmacoepidemiology (ISPE) Scholarship Recipient

- **Travel Grant** *2016*
  Helmholtz International Graduate School

- **Fellow** *2016*
  Helmholtz International Graduate School

Funding Report

Extramural Funding

Patient-level artificial intelligence to derive longitudinal phenotypes for comparative effectiveness research (2024-2027)
PCORI 2023 Improving Methods PFA
Role: Co-I (PI: Kenneth L. Kehl, Dana-Farber Cancer Institute)
This proposal aims to develop and validate machine learning models that extract key clinical features and outcomes relevant to patient phenotyping from electronic health records, including patient-reported outcomes.

Empirical Application of the Sentinel EHR and Claims Data Partner Network to Address ARIA Insufficient Inferential Requests (2023-2024)
US Food and Drug Administration Sentinel Innovation Center, WO2027
Role: Multi-PI (Multi-PI: Janick Weberpals, Rishi Desai)
This work aims to investigate if the linkage of healthcare insurance claims data to two large longitudinal electronic health record databases can address data-related insufficiencies that so far made it infeasible to conduct active risk identification and analysis (ARIA) inferential queries using state-of-the-art natural language processing tools.

Development of novel methods to enable robust comparison of real-world Progression Free Survival (rwPFS) and Clinical Trial PFS in Multiple Myeloma (2023-2024)
FDA U01 Supporting the use of Real-World Data to Generate Real-World Evidence in Regulatory Decision-Making (RFA-FD-23-025)
Role: Co-I/Collaborator (PI: Khaled Sarsour, Janssen R&D Data Science)
This proposal aims to develop novel methods for comparing real world (rwPFS) and trial Progression Free Survival (PFS) in Multiple Myeloma (MM) patients to improve acceptability of RWE for future MM drug development.

Development and refinement of toolkits for routine use in the EHR and claims Data Partner network (2023-2024)
US Food and Drug Administration Sentinel Innovation Center, WO2025

Role: Co-I (PI: Richard Wyss)
This project aims at developing an open-source toolkit to implement large-scale confounding adjustment using collaborative-controlled targeted learning approaches in Sentinel investigations.

Calibrating real-world evidence studies in oncology against randomized trials (2022-2026)
US Food and Drug Administration (in response to FDABAA-22-00123)
Role: Co-I, scientific project lead (Multi-PI: Drs. Sebastian Schneeweiss and Shirley Wang)
The proposal seeks to investigate when and how real-world evidence studies can be used to emulate and complement evidence coming from randomized trials in the field of oncology.

Approaches to handling partially observed confounder data from electronic health records (EHR) in non-randomized studies of medication outcomes (2022-2023)
US Food and Drug Administration Sentinel Innovation Center, WO2016
Activity budget $1,250,000
Role: Multi-PI (Multi-PI: Janick Weberpals, Rishi Desai)
The aim of this work is to systematically investigate approaches to detect underlying missingness mechanisms, compare imputation approaches and develop a toolkit to implement and build confidence in pharmacoepidemiological analyses with partially observed confounder variables.

Extramural Funding - submission pending

Augmenting causal inference in observational cancer research through integration of radiological imaging studies and multimodal fusion deep learning in high-dimensional real-world healthcare databases
Role: PI
Radiological images and digital radiology in oncology carry tremendous potential to derive highly prognostic digital biomarkers which can be used for a variety of use cases. This proposal aims to use novel imaging algorithms in oncology for the development of a tumor radiomic prognostic score (TRS, see research statement) to guide causal data-driven therapy decisions and response monitoring using real-world data at scale.

Clinical phenotyping to explore predictors and patient clusters for response and sustained molecular remission in patients with chronic myeloid leukemia using real-world data
Role: PI
This proposal aims to use large real-world healthcare databases to clinically phenotype patients with a rare type of blood cancer (chronic myeloid leukemia) to describe disease trajectories and develop predictive models to identify patients at risk of relapse after discontinuation of tyrosine kinase inhibitor treatment following sustained molecular remission.

Mind the evidence gap: Target trial emulations of unexplored randomized trials assessing the clinical interchangeability and heterogeneous treatment effects within novel antineoplastic treatment classes
Role: PI
Novel antineoplastic treatment classes (e.g. checkpoint inhibitors) have led to meaningful improvements in patient survival across many cancer indications. Yet, the comparative effectiveness of different molecules within the same treatment class is assumed equal for which there is no evidence to date. This proposal aims to conduct a series of target trial emulations to fill this evidence gap.

Intramural Funding

Patient representation learning in the Flatiron Health - Foundation Medicine (FMI) clinic-genomics database (CGDB) linkage (2020)
Roche Advanced Analytics Network
Role: PI, conceptualized project proposal
Six-month funding for Roche Advanced Analytics intern to leverage a comprehensive EHR-genomics database linkage for patient representation learning. (Note: Proposal was approved but application was withdrawn due to change of Department in 2020)

Real-world data analysis to support precision medicine in oncology (2019-2020)
Roche Diagnostics GmbH
Role: Multi-PI, conceptualized project proposal
Three-year funding for PhD project at Helmholtz Munich School for Data Science (MuDS) in collaboration with Helmholtz Center Munich (Dr. Narges Ahmidi) & TU Munich (TUM) to investigate and develop novel methodologies to support precision medicine in oncology using machine learning.

Risk and prognostic factors in non-small cell lung cancer patients with a non-smoking history (2019)
Roche Diagnostics GmbH
Role: PI, conceptualized project proposal
Six-month funding for M.Sc. thesis I co-advised to investigate prognosis and treatment success among non-small cell lung cancer patients with and without smoking history.

EDITORIAL ACTIVITIES

Ad hoc Reviewer [# reviews]

- British Medical Journal (BMJ) [3x]

- BMJ Open

- British Journal of Dermatology

- International Journal of Cancer [2x]

- JAMA Oncology

- Journal of Gerontology: Medical Sciences

- Pharmacoepidemiology and Drug Safety [4x]

- Radiotherapy and Oncology

SCIENTIFIC SOCIETIES AND SERVICE

- **German Society for Epidemiology (DGEpi) e.V.** *2018-present*
  Member

- **International Society for Pharmacoepidemiology (ISPE)**
  Member 2016-present
  - Member, Special Interest Group (SIG) Oncology
  - Core member, Real World Evidence Task Force Statistical Methods
  - Reviewer of abstracts submitted to Annual Conference

- **German Pharmaceutical Society (DPhG)**
  Member 2012-present

TEACHING AND MENTORING EXPERIENCE

Classroom Teaching

- **Faculty and Organizer Educational Pre-Conference Course:** *Let's git it started: transparency and reproducibility across the RWE study lifecycle using Git and the R programming language.* Main responsible for conceptualization, organization and delivery of this pre-conference educational course as part of the Advanced Methods Sessions. International Society for Pharmacoepidemiology (ISPE) Annual Meeting 2024, Berlin, Germany

- **Faculty Educational Pre-Conference Course:** *Practical applications of AI/ML in Pharmacoepidemiology Research.* The presentation was part of the pre-conference educational course Artificial Intelligence for Pharmacoepidemiology Research: An Introduction, International Society for Pharmacoepidemiology (ISPE) Mid-Year Meeting 2024, Orlando, FL, USA (talk could not be delivered due to a medical emergency)

- **Introduction to transparent and reproducible R programming**. Course series Fall 2023 - Spring 2024

  Introduction to transparent and reproducible R programming for research in pharmacoepidemiology. Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital, Harvard Medical School (1.5 hour session, 18 October 2023)

  Data visualization to communicate scientific findings using the R programming language. Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital, Harvard Medical School (1.5 hour session, 18 January 2024)

  Creating reproducible and publication-ready tables using the R programming language. Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital, Harvard Medical School (1.5 hour session, 21 March 2024)

- **Faculty Educational Webinar of the International Society for Pharmacoepidemiology (ISPE) Student Chapter**. Webinar title: *Let's Git it started: An introduction to reproducible analytic workflows in real-world evidence using Git*, International Society for Pharmacoepidemiology (ISPE) Webinar 2024 (virtual, sponsored by the ISPE Student Council), 115+ attendees

- **Faculty Educational Pre-Conference Course: Advanced Pharmacoepidemiology Methods.** This 4-hour course was part of the pre-conference educational course on advanced pharmacoepidemiology methods: Mitigating Missing Data Concerns with External or Internal Subset Validation Populations. International Society for Pharmacoepidemiology (ISPE) Annual Meeting 2022, Copenhagen, Denmark

- **Introduction to Pharmacoepidemiology, Epidemiology Module, Medical Biometry/Biostatistics M.Sc. graduate course.** Institute for Medical Biometry and Informatics (IMBI), Heidelberg University, Germany. 6-hr one-day session, 2 yr cycle, 2019-2021

Mentoring

- **Harvard School of Public Health**   *Boston, MA, United States*
  Denys Shay, PhD Student   2023-present
  – Day-to-day supervisor
  – Doctoral dissertation committee member

- **Harvard School of Public Health**   *Boston, MA, United States*
  Omar Mansour, PhD Student   2023-present
  – Day-to-day supervisor
  – Doctoral dissertation committee member

- **Brigham and Women's Hospital**   *Boston, MA, United States*
  Victoria Anyanwu, Summer Intern   2023
  – Co-Mentor

- **Munich School of Data Science, Helmholtz AI**   *Munich, Germany*
  Hugo Loureiro, PhD Student   2019-2020
  – Thesis co-advisor
  – Search committee member
  – Accomplishments: published comprehensive benchmarking manuscript on artificial intelligence algorithms for prognostic scores development in oncology

- **Justus Liebig University Giessen** — *Giessen, Germany*

  Patrick Hanel, M.Sc. Student — 2019
  - Thesis co-advisor
  - Oral examination committtee member
  - Accomplishments: graduated with distinction and was in result awarded competitive PhD position at Munich School for Data Science

REPORT OF TECHNOLOGICAL AND OTHER SCIENTIFIC INNOVATIONS

Patents

Propensity Score Based Assessment Of Patient Data. Janick Weberpals, Fabian Schmich, Fabian J. Theis, Anna Bauer-Mehren. 2020. PROPENSITY SCORE BASED ASSESSMENT OF PATIENT DATA. International Patent Application Number PCT/EP2020/064 134, filed 20 May 2020, Patent Pending. Publication WO2020234388A1

Software Packages

smdi. smdi ⌁ (structural missing data investigations) is a statistical software package for the R programming language to perform principled analyses on missing data in healthcare databases. Accepted and published on CRAN, the central R software repository of the R foundation, July 17, 2023, version 0.2.2.

FlatironKitchen. FlatironKitchen is An R package for end-to-end analyses in the Flatiron Health database (proprietary Roche internal package, contributor).

PRESENTATIONS

This section lists all invited and contributed oral talks and poster presentations.

Invited Oral Presentations

1. The role of pharmacoepidemiology in the era of precision medicine: case studies from the field of oncology, International Society for Pharmacoepidemiology (ISPE) Mid-Year Meeting, Orlando, FL, USA, April 15, 2024 (talk could not be delivered due to a medical emergency)

2. Characterizing Missing Data Processes in EHR Data. FDA All-Center Leadership Meeting, June 7, 2023 (virtual)

3. Issues and Solutions When Estimating Treatment Effects Using US Electronic Health Record Data (panelist), International Society for Health Economics and Outcomes Research (ISPOR) Annual Meeting, Boston, MA, May 10, 2023 [Recording ⌁]

   Closing plenary panel session with 1000+ attendees

4. Approaches to handling partially observed confounder data from electronic health records, FDA Sentinel Public Training and Innovation Day, April 12, 2023 (virtual) [Recording ⌁]

5. Deep Learning on Electronic Health Records for Research in Pharmacoepidemiology: Examples from The Field of Oncology. Invited speaker at FDA Sentinel Innovation and Methods Seminar series on September 7, 2022 (virtual) [Recording ⌁]

6. Onco-Pharmacoepidemiology. Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, USA, June 14, 2021 (Virtual faculty candidate seminar presentation)

7. Deep learning-based propensity scores for confounding control in comparative effectiveness research: a large-scale, real-world data study. Methods Meeting at the Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, USA, April 27, 2021

8. Real-world Data Science in Pharmaceutical Research & Early Drug Development, Research & Development Career Day and Mentoring Event, German Cancer Research Center (DKFZ), Heidelberg, Germany, December 6, 2019

9. Cancer Pharmacoepidemiology: Researching the Diffusion of Innovation. University of Florida, Gainesville, FL, USA, November 14, 2019 (Faculty candidate seminar presentation)

10. Deep Learning in Pharmacoepidemiology & Drug Development. Mittwochsfortbildung [Clinical advanced training lecture], Department for Clinical Pharmacology and Pharmacoepidemiology, University hospital Heidelberg, Heidelberg, Germany, August 9, 2019

Contributed Oral Presentations as Lead Author/Presenter

1. High-Dimensional Multiple Imputation (HDMI) For Partially Observed Confounders Including Natural Language Processing-Derived Auxiliary Covariates. 40th International Conference on Pharmacoepidemiology & Therapeutic Risk Management, Berlin, Germany (2024)

2. Introducing smdi: An R package to perform structural missing data investigations for real-world evidence studies. R/Pharma conference (virtual) (2023)

3. Principled Approaches To Handle Partially Observed Confounder Data From Electronic Health Records: A Plasmode Simulation Study. 39th International Conference on Pharmacoepidemiology & Therapeutic Risk Management, Halifax, Canada (2023)

4. smdi: An R package to perform routine structural missing data investigations in real-world data. 36th New England Statistics Symposium, Boston University, Boston, MA, USA (2023)

5. A Systematic Approach Towards Missing Lab Data in Electronic Health Records: A Case Study in Non-Small Cell Lung Cancer and Multiple Myeloma. 37th International Conference on Pharmacoepidemiology & Therapeutic Risk Management (meeting was held virtually due to COVID-19) (2021)

6. Deep learning-based propensity scores for confounding control in comparative effectiveness research: a large-scale real-world data study. 36th International Conference on Pharmacoepidemiology & Therapeutic Risk Management, Berlin, Germany (meeting was held virtually due to COVID-19) (2019)

7. Deep learning-based propensity score computation - A methodological approach to constructing synthetic control arms. RPF/RiSE Symposium 2019. Basel, Switzerland (2019)

8. Deep Learning on Real-World Data: Overview and Application in Early Drug Development. Symposium Clinical Pharmacology & Clinical Pharmacy. Reims, France (2019)

9. High-dimensional real-world data: chances, challenges and exemplary use cases. Global Data Science Conference (Roche internal). Baden-Baden, Germany (2019)

10. Deep Learning-based Propensity Score Computation: Exemplary Cohort Study in Second Line Metastatic Cancer Patients Treated with Cancer Immunotherapy Versus Non-Cancer Immunotherapy. 10th Workshop of the working group Pharmacoepidemiology of the German Society for Epidemiology (DGEpi). Berlin, Germany (2019)

11. Comparative performance of a modified landmark approach when no time of treatment data are available within oncological databases: exemplary cohort study among resected pancreatic cancer patients. 9th Workshop of the working group Pharmacoepidemiology of the German Society for Epidemiology (DGEpi). Bremen, Germany (2018)

Poster Presentations and Conference Proceedings

This sections includes delivered poster presentations as well as (co-)authored conference proceedings

1. Design and Methodological Considerations for Real World Data-Derived Progression-Free Survival in Multiple Myeloma, ASH Annual Meeting, San Diego, California (2024)

2. Plasek JM, Wyss R, **Weberpals J**, Yang J, DeRamus T, TsacogianisTN, Ngan K, Bessette LG, Lin JK, Zhou L. Comparative Ranking of Marginal Confounding Impact of Natural Language Processing-Derived Versus Structured Features in Pharmacoepidemiology. AMIA Annual Symposium, San Francisco, CA, USA (2024)

   Submission has been accepted for podium presentation at AMIA 2024 out of the over 1,400 submissions

3. Wyss R, **Weberpals J**, Yang J, Hahn G, Plasek J, Zhou L, Deramus T, Ngan K, Lin JK. Scalable Natural Language Processing for Large-Scale Covariate Adjustment in Healthcare Database Studies. Submitted to 40th International Conference on Pharmacoepidemiology & Therapeutic Risk Management, Berlin, Germany (2024)

4. **Weberpals J**, Raman SR, Shaw PA, Lee H, Hammil BG, Toh D, Connolly JG, Dandreo KJ, Zabotka L, Tian F, Liu W, Li Jie, Hernandez-Munos JJ, Glynn RJ, Desai RJ. Principled Approaches To Handle Partially Observed Confounder Data From Electronic Health Records: A Plasmode Simulation Study. 39th International Conference on Pharmacoepidemiology & Therapeutic Risk Management, Halifax, NS, Canada (2023)

5. Wyss R, Russo M, **Weberpals J**, Plasek J, Zhou Li, Lin KJ. Scalable natural language processing of electronic health records to supplement large-scale covariate adjustment in pharmacoepidemiologic studies. 39th International Conference on Pharmacoepidemiology & Therapeutic Risk Management, Halifax, NS, Canada (2023)

6. Chen L, Davis R, Lee J, **Weberpals J**, Wyatt S, Ounadjela S, Trinh H, Fruechtenicht C, Reyes A, Huntley M. Comparison of Response from RECIST1.1 and Abstraction in Real World Lung Cancer Patients. American Society of Clinical Oncology (ASCO) Annual Meeting, Chicago (2023)

7. **Weberpals J**, Fruechtenicht C, Davis R, Huntley M, Oki Y, Wyatt S, Castro F, Trinh H. Patient characteristics, outcomes and potential for bias in oncological real-world data studies with imaging-derived response endpoints. 38th International Conference on Pharmacoepidemiology & Therapeutic Risk Management, Copenhagen, Denmark (2022)

8. Dienstmann R, Turnbul Cl, Hackshaw Allan, Blay JY, Maud K, Servant N, Geissler J, Tamborero D, **Weberpals J**, Fear S, Perret S, Perez L, von Meyenn Martina, Le Tourneau C. Conceptualisation of core clinico-molecular variables for registries enrolling patients (pts) with solid tumours profiled with next-generation sequencing (NGS). American Association for Cancer Research Annual Meeting (AACR) (2022)

9. Lenz HJ, **Weberpals J**, Cremolini C, Grothey A, Leutgeb B, Mahrus S, Nimeiri H, Reyes-Rivera I, Seligmann J, Tabernero J, Tejpar S, Yoshino T, Stintzing S. Utilisation and predictors of genomic testing prior to first-line (1L) therapy in patients (pts) with metastatic colorectal cancer (mCRC). European Society for Medical Oncology (ESMO) Annual Meeting (2021). Ann Oncol 2021; 32(5); S530-82.

10. Loureiro H, Becker T, Bauer-Mehren A, Ahmidi N, **Weberpals J**. Improving predictive ability of survival models: comparison of multiple state of the art models. 36th International Conference on Pharmacoepidemiology & Therapeutic Risk Management, Berlin, Germany, 2020 (meeting was held virtually due to COVID-19) [Oral presentation]

    Competitively selected oral abstract presented by Ph.D. mentee Hugo Loureiro

11. **Weberpals J**, Becker T, Schmich, Rüttinger D, Theis FJ, Bauer-Mehren A. Deep learning-based propensity score computation: Cohort study in second line treated advanced non-small cell lung cancer (aNSCLC) patients. 35rd International Conference on Pharmacoepidemiology & Therapeutic Risk Management, Philadelphia, USA (2019). Pharmacoepidemiol Drug Saf 2019; 28:585-586.

12. **Weberpals J**, Jansen L, Silversmit G, Veerbeck J, van der Geest L, Vissers PAJ, Zadnik V, Brenner H. Comparative performance of a modified landmark approach when no time of treatment data are available within oncological databases: exemplary cohort study among resected pancreatic cancer patients. Pharmacoepidemiol Drug Saf (2018); 27:223-223.

13. **Weberpals J**, Jansen L, Müller OJ, Brenner H. Long-term heart-specific mortality among 347,476 breast cancer patients treated with radio- or chemotherapy: A registry-based study. Pharmacoepidemiol Drug Saf (2018);27:144-144.

14. **Weberpals J**, Jansen L, Haefeli WE, Hoffmeister M, Wolkewitz M, Herk-Sukel MPPv, Vissers PAJ, Brenner H. Pre- and post-diagnostic beta-blocker use and lung cancer survival: A population-based cohort study. 33rd International Conference on Pharmacoepidemiology & Therapeutic Risk Management, Montréal, Canada, 2017. Pharmacoepidemiol Drug Saf (2017);26: 269.

    Poster was selected juried spotlight poster

15. **Weberpals J**, Jansen L, van Herk-Sukel MPP, Kuiper JG, Aarts MJ, Vissers PAJ, Brenner H. Immortal time bias in pharmacoepidemiological studies on cancer patient survival: empirical illustration for beta-blocker use in four cancers with different prognosis. 33rd International Conference on Pharmacoepidemiology & Therapeutic Risk Management, Montréal, Canada, (2017). Pharmacoepidemiol Drug Saf 2017;26:91-91

16. Muhlack DC, Hoppe LK, **Weberpals J**, Brenner H, Schottker B. The Association of Potentially Inappropriate Medication at Older Age With Cardiovascular Events and Overall Mortality: A Systematic Review and Meta-Analysis of Cohort Studies. Pharmacoepidemiol Drug Saf (2017);26: 173-173

17. Pulte D, Jansen L, **Weberpals J**, Brenner H. Population Level Survival for Patients with Multiple Myeloma By Insurance Type and Early Indications of Changes with Adoption of the Medicaid Expansion of the Affordable Care Act. Blood (2017);130(Suppl 1): 3438-3438

18. Pulte D, Jansen L, **Weberpals J**, Brenner H. Updated Population Based Survival Analysis in Patients with Chronic Myeloid Leukemia: Increased Survival but Continued Disparities for Older Patients. Blood (2017);130(Suppl 1): 2192-2192

19. Brunßen A, Jansen L, Eisemann N, **Weberpals J**, Katalinic A. Recent trends in relative survival from melanoma in Germany stratified by age group, T-stage, and histological subtype. Das Gesundheitswesen (2017);79: V-181.

20. Pulte D, **Weberpals J**, Jansen L, Katalinic A, Nennecke A, Bernd H, Meike R, Sabine L, Brenner H. Survival of Patients with Rare Plasma Cell or Lymphoplasmacytoid Malignancies in Germany and the United States in the Early 21st Century. Blood (2016);128: 4767-4767.

21. Pulte D, **Weberpals J**, Jansen L, Katalinic A, Nennecke A, Holleczek B, Ressing M, Luttmann S, Brenner H. Population Level Survival for Patients with Rare Hematologic Malignancies in the United States in the Early 21st Century. Blood (2016);128: 2416-2416.

22. Beta blockers and cancer prognosis - The role of immortal time bias: A systematic review and meta-analysis. 32nd International Conference on Pharmacoepidemiology & Therapeutic Risk Management, Dublin, Ireland 2016. Pharmacoepidemiol Drug Saf (2016); 25:561-2.

23. Identification of risk factors for drug-induced altered mental status, delirium and psychosis for the development of a predictive risk model. 28th Annual Research Showcase And Awards Recognition Day, University of Florida, College of Pharmacy, Gainesville, FL, United States, (2015)

PUBLICATIONS

Impact factors relate to most recent ones in the year of publication
* indicates co-first or co-senior authorship.
** indicates that mentee is first or co-first author.

Orginal research

1. Lyalina S, Ortiz Munoz G, Carroll J, Yuen K, Breart B, Rouilly V, Croft B, Senbabaoglu Y, Chitre A, Lianoglou S, Liang J, **Weberpals J**, Fontes M, Chandler S, Mohindra R, Turley S, Jansen G, Mellman I, Mariathasan S, Albert M, Nagarkar D, Moussion C. Negative impact of the GABA pathway on aPD-1/PD-L1 immunotherapy. (submitted)

2. **Weberpals J**, Shaw, PA, Lin KJ, Wyss R, Plasek JM, Zhou L, Ngan K, DeRamus T, Raman SR, Hammill BG, Lee H, Toh S, Connolly JG, Dandreo KJ, Tian F, Liu W, Li J, Hernández-Muñoz JJ, Schneeweiss S, Desai, RJ. High-dimensional multiple imputation (HDMI) for partially observed confounders including natural language processing-derived auxiliary covariates. Am J Epidemiol. 2024 (accepted). IF 4.897

3. **Weberpals J**, Wang SV. External Controls to Study Treatment Effects in Rare Diseases: Challenges and Future Directions. Clin Pharmacol Ther. 2024 Dec;116(6):1521-1524. IF 6.3

4. Raman SR, Hammill BG, Shaw PA, Lee H, Toh S, Connolly JG, Dandreo KJ, Nalawade V, Tian F, Liu W, Li J, Hernández-Muñoz JJ, Glynn RJ, Desai RJ, **Weberpals J**. Analyzing missingness patterns in real-world data using the SMDI toolkit: application to a linked EHR-claims pharmacoepidemiology study. BMC Med Res Methodol. 2024 Oct 19;24(1):246. IF 3.9

5. Ackerman B, Gan RW, Meyer CS, Wang JC, Zhang Y, Hayden J, Mahoney G, Lund J, **Weberpals J**, Schneeweiss S, Roose J, Siddique J, Nadeem O, Giri S, Stürmer T, Ailawadhi S, Batavia AS, Sarsour K. Measurement Error and Bias in Real-World Oncology Endpoints when Constructing External Control Arms. Front Drug Saf Regul. 2024 Jul 19;4:1423493.

6. **Weberpals J**, Raman SR, Shaw PA, Lee H, Russo M, Hammill BG, Toh S, Connolly JG, Dandreo KJ, Tian F, Liu W, Li J, Hernández-Muñoz JJ, Glynn RJ, Desai RJ. A Principled Approach to Characterize and Analyze Partially Observed Confounder Data from Electronic Health Records. Clin Epidemiol. 2024 May 21;16:329-343. IF 3.4

7. **Weberpals J**, Raman SR, Shaw PA, Lee H, Hammill BG, Toh S, Connolly JG, Dandreo KJ, Tian F, Liu W, Li J, Hernández-Muñoz JJ, Glynn RJ, Desai RJ. smdi: an R package to perform structural missing data investigations on partially observed confounders in real-world evidence studies. JAMIA Open. 2024 Jan 31;7(1):ooae008. IF: 2.1

8. Desai RJ, Bradley MC, Lee H, Eworuke E, **Weberpals J**, Wyss R, Schneeweiss S, Ball R. A simulation-based bias analysis to assess the impact of unmeasured confounding when designing non-randomized database studies. Am J Epidemiol. 2024 May 31:kwae102. IF: 5.0

9. Sondhi A*, **Weberpals J***, Yerram P, Jiang C, Taylor M, Samant M, Cherng S. A systematic approach towards missing lab data in electronic health records: A case study in non-small cell lung cancer and multiple myeloma. CPT Pharmacometrics Syst Pharmacol. 2023 Jun 15. IF: 3.1

10. Jin Y, **Weberpals J**, Wang SV, Desai RJ, Merola D, Lin KJ. The Impact of Longitudinal Data-Completeness of Electronic Health Record Data on the Prediction Performance of Clinical Risk Scores. Clin Pharmacol Ther. 2023 Apr 7. IF: 6.3

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