Biyue Dai

Education

The University of Iowa — Iowa City, IA

    Ph.D., Biostatistics — December 2019

    M.S., Biostatistics — December 2016

Lawrence University — Appleton, WI

    B.A., Mathematics, *magna cum laude* — June 2014

Work Experience

University of Minnesota, Division of Biostatistics — Minneapolis, MN
Coordinating Centers for Biometric Research (CCBR)
Assistant Professor — May 2022 - Current

Eli Lilly and Company, Global Statistical Science — Indianapolis, IN
Research Scientist - Statistics, Diabetes/Endocrine — January 2020 - April 2022

University of Iowa Hospitals and Clinics, Department of Neurology — Iowa City, IA
Graduate Research Assistant — March 2017 - *August 2019*

Mayo Clinic, Division of Biomedical Statistics and informatics — Rochester, MN
Biostatistics Intern — Summer 2018

Medivation Inc (Part of Pfizer), Department of Biometrics — San Francisco, CA
Biostatistics Intern — Summer 2016

University of Iowa, Center for Public Health Statistics — Iowa City, IA
Graduate Research Assistant — Sept 2014 - May 2017

Lawrence University, Department of Mathematics — Appleton, WI
Undergraduate Research Assistant — Summer 2013

Publications

- Boulware, D. R., Atukunda, M., Kagimu, E., Musubire, A. K., Akampurira, A., Tugume, L., Ssebambulidde, K., Kasibante, J., Nsangi, L., Mugabi, T., Gakuru, J., Kimuda, S., Kasozi, D., Namombwe, S., Turyasingura, I., Rutakingirwa, M. K., Mpoza, E., Kigozi, E., Muzoora, C., ... **Dai, B.**., Meya, D. B. (2023). Oral Lipid Nanocrystal Amphotericin B for Cryptococcal Meningitis: A Randomized Clinical Trial. Clinical Infectious Diseases. https://doi.org/10.1093/cid/ciad440

- Sekar, P., Nalintya, E., Kwizera, R., Mukashyaka, C., Niyonzima, G., Namakula, L. O., Nerima, P., Fieberg, A., **Dai, B.** , Ellis, J., Boulware, D. R., Meya, D. B., Bahr, N. C., Rajasingham, R. (2023). Prevalence of Histoplasma Antigenuria among Outpatient Cohort with Advanced HIV in Kampala, Uganda. Journal of Fungi (Basel), 9(7), 757–.

- Qu, Y., **Dai, B.** (2022). Return-to-baseline Multiple Imputation for Missing Values in Clinical Trials. *Pharmaceutical Statistics, 21*(3), 641-653.

- **Dai, B.**, Polley, M. (2020). Two Stage Adaptive Design for Prognostic Biomarker Signature with Survival Outcome. *Statistics in Biopharmaceutical Research, 14*(2), 217-226.

- Zevallo C., **Dai B.**, Dandapat S., Quispe-Orozco D., Holcombe A., Ansari S., Farooqui M., Derdeyn C., Samaniego E., Ortega-Gutierrez S. (2021). Greater Intraprocedural Systolic Blood Pressure and Blood Pressure Variability are Associated with Contrast-Induced Neurotoxicity after Neurointerventional Procedures, *Journal of the Neurological Sciences, 410,* 117209.

- Holcombe A., Mohr N., Farooqui M., Dandapat S., **Dai B.**, Zevallo C., Quispe-Orozco D., Siddiqui F., Ortega-Gutierrez S. (2020). Patterns of Care and Clinical Outcomes in Patients with Cerebral Sinus Venous Thrombosis, *Journal of Stroke and Cerebrovascular Diseases, 29*(12), 105313.
- Dandapat S., Kasab S., Zevallos C., Farooqui M., **Dai B.**, Quispe-Orozco D., Dajles A., Hasan D., Samaniego E., Derdeyn C., Ortega-Gutierrez S. (2020). In-House Anesthesia and Interventional Radiology Technologist Support Optimize Mechanical Thrombectomy Workflow after Hours, *Journal of Stroke and Cerebrovascular Diseases, 29*(11), 105246.
- Ortega-Gutierrez S., Holcombe A., Aksan N., **Dai B.**, Shaban A., Lazarre L., Zheng-lin B., Sager L., Dandapat S., Siddiqui F., Mohr N. (2020). Association of Admission Clinical Predictors an Functional Outcome in Patients with Cerebral Venous andd Dural Sinus Thrombosis.*Clinical Neurology and Neurosurgery, 188*, 105563.
- Samaniego E., Shaban A., Ortega-Gutierrez S., Roa J., Hasan D., Derdeyn C., **Dai B.**, Adams H., Leira E.(2019). Stroke mechanisms and outcomes of isolated symptomatic basilar artery stenosis, *Stroke and Vascular Neurology, 4*(4), 189-197.
- Limaye K., Bryant A., Bathla G., **Dai B.**, Alkasa B., Shaban A., Samaniego E., Hasan D., Policeni B., Leira E., Derdeyn C., Ortega-Gutierrez S. (2019). Computed tomography angiogram (CTA) derived from computed tomography perfusion (CTP) done with low iodine volume protocol preserves diagnostic yield for middle cerebral artery (MCA) -M2 occlusions, *Journal of Stroke and Cerebrovascular Diseases, 28*(12), 104458.

Submitted & In Preparation

- **Dai, B.**, Breheny, P. Comparing Cross Validation Methods for Penalized Cox Regression. (revision) https://arxiv.org/abs/1905.10432
- **Dai, B.**, Preheny, P. Projection-Based Inference and Model Selection for Penalized Regression.*(link)*

Presentations and Posters

Statistical Research

- **Dai B.**, Qu Y. (contributed talk 8/2021) Return-to-baseline Multiple Imputation for Missing Values in Clinical Trials. *Joint Statistical Meetings 2021, Virtual.*
- Polley, M **Dai B.**, (invited talk, 8/2021) Two Stage Adaptive Design for Prognostic Biomarker Signature with Survival Outcome. *Joint Statistical Meetings 2021, Virtual*
- **Dai B.**, Breheny P. (contributed talk 7/2019) Projection Inference for Penalized Regression Estimators. *Joint Statistical Meetings 2019, Denver, CO.*
- **Dai B.**, Polley, M (invited talk, 6/2019) Two Stage Adaptive Design for Prognostic Biomarker Signature with Survival Outcome. *ICSA Applied Statistics Symposium, Raleigh, NC.*
- **Dai B.**, Breheny P. (contributed talk 3/2019) Projection Inference for Penalized Regression Estimators. *ENAR 2019 Spring Meeting, Philadelphia, PA.*
- **Dai B.**, Breheny P. (contributed talk, 8/2017) Comparing Cross Validation Methods for Penalized Cox Regression. *Joint Statistical Meetings, Baltimore, MD.*
- **Dai B.**, Demirhan E. (contributed talk, 12/2016) Selection Criteria for Stratification Factors in Phase III Oncology Trials. *ICSA International Conference, Shanghai, China.*

Collaborative Research (Selected)

- Vazquez L, Rosenstock J., Del Prato S., Franco D., **Dai B.**, Weerakkody G., Fernandez L., Bergman B., Rodriguez A., (poster, 09/2022) Patient characteristics associated with achievement of normoglycaemia following treatment with tirzepatide in the SURPASS 1-4 trials. *European Association for the Study of Diabetes (EASD) Annual Meeting. Stockholm, Sweden.*

- Rosenstock J., Del Prato S., Franco D., Vazquez L, **Dai B.**, Weerakkody G., Fernandez L., Rodriguez A., Bergman B., (poster, 06/2022) Characterization of Tirzepatide-Treated patients achieving HbA1c <5.7% in the SURPASS 1-4 Trials. *American Diabetes Association 82nd Scientific Sessions. New Orleans, LA*

- Shaban A., **Dai B.**, Aksan N., Ahmed U., Granchi J., Zheng B., Dandapat S., Ortega-Gutierrez S. (poster, 10/2018) Novel Score to Predict Outcomes in Patients with Cerebral Venous Sinus Thrombosis . *Annual Meeting of the American Neurological Association. Atlanta, GA.*

- Zheng-Lin B., Samaniego E., **Dai B.**, Torner J., Derdeyn C., Hasan D., Todd M., Ortega-Gutierrez S. (poster, 9/2018) Neurocritical Care Consult Associated with Better Discharge Outcome in Patients with Aneurysmal Subarachnoid Hemorrhage. *Neurocritical Care Society Annual Meeting. Boca Raton, FL.*

- Shaban A., Samaniego E., Aksan N., **Dai B.**, Ahmed U., Granchi J., Zheng B., Lazarre L., Adams H., Leira E., Ortega-Gutierrez S. (poster, 1/2018) Quantitative Analysis of Hemorrhage and Infarct Volume for Predicting Outcome in Cerebral Venous Sinus Thrombosis . *International Stroke Conference. Los Angeles, CA.*

GRANT SUPPORT

Active

- Title: Redefining Tuberculosis Meningitis with Metagenomics and Host Transcriptomics
  PI: Michael Wilson, David Boulware (Site PI)
  Source: National Institute of Allergy and Infectious Disease
  Type: R01
  Role: Statistician

- Title: Improving Diagnostics and Neurocognitive Outcomes in HIV/AIDS-related Meningitis
  PI: David Boulware
  Source: National Institute of Neurological Disorders and Stroke
  Type: R01
  Role: Statistician

- Title: Determining the performance and accuracy of SILVAMP TB LAM and cost effectiveness of diagnostic testing for TB meningitis
  PI: Radha Rajasingham
  Source: National Institute of Allergy and Infectious Disease
  Type: R01
  Role: Statistician

- Title: An Enhanced Package of Care to Reduce Mortality in Persons with Advanced HIV Disease
  PI: Radha Rajasingham, David Boulware
  Source: National Institute of Allergy and Infectious Disease
  Type: R01
  Role: Statistician

- Title: TB Meningitis: Evaluating CSF Immunology to Discover Hidden Disease and Potential Immunomodulatory
  PI: David Boulware, David Meya
  Source: National Institute of Allergy and Infectious Disease
  Type: R01
  Role: Statistician

- Title: Enhanced Antifungal Therapy to Improve Survival in Early Disseminated Cryptococcal Infection
  PI: Radha Rajasingham

Source: National Institute of Allergy and Infectious Diseases
Type: U01
Role: Statistician

- Title: Encochleated Oral Amphotericin for HIV-related Cryptococcal Meningitis Trial: Phase 3 Trial
PI: David Boulware, David Meya
Source: National Institute of Neurological Disorders and Stroke
Type: UG3
Role: Statistician

Past

- Title: Encochleated Oral Amphotericin for Cryptococcal Meningitis Trial
PI: David Boulware, David Meya
Source: National Institute of Neurological Disorders and Stroke
Type: R01
Role: Statistician

Professional Activities

- Journal Review:
  - Biometrics
  - Health Services and Outcomes Research Methodology
  - PLOS ONE
  - Scientific Report
  - International Journal of Infectious Diseases
  - The Lancet Infectious Disease
  - The Lancet Regional Health - Europe
- Data Safety Monitoring Board Member:
  - Lipid Anti-Inflammatory Mediators in Asthma to Reduce Hyperresponsiveness in Obese Asthmatics; Sponsored by NIH/NHLBI
  - Initial Vancomycin Taper for the Prevention of Recurrent Clostridium difficile Infection; Sponsored by Research Institute of the McGill University Health Centre
- Other Review Activities:
  - Reviewer for 2023 ICSA Applied Statistics Symposium, Student Paper Competition

Teaching Experience

University of Iowa, Department of Biostatistics	Iowa City, IA
Lab Instructor	Summer 2019
University of Iowa, Department of Biostatistics	Iowa City, IA
Substitue Lecturer	Feb 2018
Lawrence University, Center for Teaching and Learning	Appleton, WI
Content Tutor	Sept 2011 - June 2014
Lawrence University, Department of Mathematics	Appleton, WI
Teaching Assistant	Sept 2012 - June 2014

Advising/Mentoring

- Master thesis (Plan B) Advisee: Monica Iram, M.S.   Spring 2023
- Graduate Research Assistant: Maria Godinez, M.S.   2022 - 2023
- Graduate Research Assistant: Can Zhang, (M.S.)   2023 - Present
- Academic Advisee: Jiayi Hu, (M.S.)   2022 - Present
- Academic Advisee: Ellery Island, (Ph.D.)   2023 - Present
- Academic Advisee: Jonanthan Barnes, (MPH)   2023 - Present

Honors and Awards

- Milford E. Barnes Award, Department of Biostatistics, University of Iowa   2020
- Leon F. Burmeister Graduate Student Service Award, Department of Biostatistics, University of Iowa   2019
- Ballard and Seashore Dissertation Fellowship, University of Iowa   2019
- Dr. Eunice Beam Travel Grants for Women in Science and Engineering, University of Iowa   2019
- Dr. Carol S. Gleich Development Award, College of Public Health, University of Iowa   2019
- Research Week Poster Award, College of Public Health, University of Iowa   2018
- Sahs Symposium Best Poster Award, Department of Neurology, University of Iowa   2017
- Graduate Student Senate Travel Funds Award, University of Iowa   2017, 2019
- Phi Beta Kappa, Lawrence University   2014
- Dean's List, Lawrence University   2010 - 2014
- SAMSI Undergraduate Workshop Travel Award, SAMSI   2013
- White Prize for Mathematics, Lawrence University   2012

Professional Membership

- Society of Clinical Trials (SCT)
- American Statistical Association (ASA)
- International Chinese Statistical Association (ICSA)