

Lindsey Dobyns, MPH

Current Position

Associate Health Scientist I

Discipline Areas

- > Epidemiology
- > Biostatistics

Years' Experience

2

Joined Cardno

2021

Education

- > MPH, Epidemiology & Biostatistics, University of California, Berkeley, 2021
- > BS, Neurobiology, Physiology, & Behavior, University of California, Davis, 2016

Summary of Experience

Lindsey Dobyns is an Associate Health Scientist I with Cardno ChemRisk. She received a BS in Neurobiology, Physiology, and Behavior from the University of California, Davis. Following graduation, she worked at the Alzheimer's Disease Center at the University of California, Davis Medical Center gaining experience in neuroimaging and neurodegenerative diseases. She graduated in May 2021 from the University of California, Berkeley with her Master of Public Health degree concentrating in Epidemiology and Biostatistics. Her work at the University of California, Berkeley focused on Alzheimer's disease and cognitive resilience. She additionally took courses in epidemiological methods, biostatistics, R, python, and machine learning. Her master's thesis used novel statistical modeling to quantify global resilience.

Significant Projects

Epidemiology & Biostatistics

Using Novel Hierarchical Statistical Modeling to Quantify Global Cognitive Resilience

Worked in the laboratory of Dr. William Jagust at the University of California, Berkeley on quantifying a single cognitive global resilience score for cognitively normal older adults using novel hierarchical statistical models. Specifically, implemented confirmatory factor analysis and partial least squares path modeling. Global resilience scores were assessed against PET-generated Alzheimer's disease pathological models as well as longitudinal cognitive performance in mixed linear effects models. This research was used as a capstone project.

Neurodegenerative Diseases & Neuroimaging

Alzheimer's Disease Center, University of California, Davis Medical Center

Used an in-house linux-based program to conduct longitudinal analyses of MRI data in brains impacted by neurodegenerative diseases. Operated MRI machines (3T and 1.5T) to acquire images of participants' brains for various research projects: clinical trials (Roche and Genentech) and research studies (Kaiser Permanente, etc.). Developed and implemented new safety protocols for MRI exams and conducted quarterly reports of both MRI and PET imaging studies.

Litigation Support

Provided litigation support to cases involving potential exposure to asbestos and glyphosate. Reviewed and interpreted relevant literature and case materials for use in preparation of expert reports.

- > Dobyns, L., Zhuang, K., Baker, S., Mungas, D., Jagust, W. J., Harrison, T. M. (under review). A Consolidated Measure of Resilience Interacts with Tau Pathology to Predict Longitudinal Memory Change in Aging

Publications

Presentations

- > Dobyms, L., Zhuang, K., Baker, S. L., Jagust, W. J., Harrison, T. M. A Global Resilience Score Captures Associations with AD Pathology and Predicts Cognitive Decline in Cognitively Healthy Older Adults. Alzheimer's Association International Conference Poster Presentations. Summer 2021. Virtual Event
- > Persing, A., Dobyms, L., Lotter, J. Implications for Recommendations from a Meta-Analysis and Preliminary Systematic Review Investigating Upper Extremity Discomfort among Office Workers Using a Sit-Stand Desk. American Industrial Hygiene Conference & Expo. May 2021. Virtual Event.