

CAROLYN LOU

Philadelphia, PA ♦ louc@pennmedicine.upenn.edu ♦ (408) 218-0784

EDUCATION

University of Pennsylvania, Perelman School of Medicine Philadelphia, PA
PhD Candidate in Biostatistics, Graduate Group in Epidemiology and Biostatistics August 2017-Present
Advisor: Dr. Russell T. Shinohara

University of Pennsylvania, Perelman School of Medicine Philadelphia, PA
MS in Biostatistics, Graduate Group in Epidemiology and Biostatistics August 2017-June 2019
Advisor: Drs. Nandita Mitra and David Margolis
Thesis Title: Thymic Stromal Lymphopoietin Variation and the Persistence of Atopic Dermatitis: An Examination of Linkage Disequilibrium and Missingness in Longitudinal Studies

Washington University in St. Louis St. Louis, MO
BA, Double Major in Mathematics and Finance, Minor in Psychology September 2013-May 2017

RESEARCH

University of Pennsylvania, Department of Biostatistics, Epidemiology and Informatics
Lab Rotation with Dr. Mingyao Li September-December 2017
Lab Rotation with Dr. Rebecca Hubbard January-April 2018
Lab Rotation with Dr. Russell T. Shinohara June 2018-present

Washington University School of Medicine, Cancer Proteogenomics Lab of Dr. Li Ding
Undergraduate Research Assistant January 2015-May 2017

Washington University in St. Louis, Emotion and Mental Health Lab of Dr. Renee J. Thompson
Undergraduate Research Assistant January 2014-May 2015

TEACHING

EPID803: Biostatistics in Practice Spring 2020
Teaching Assistant
University of Pennsylvania, Biomedical Graduate Studies

BIOM611: Statistical Methods for the Design and Analysis of Experiments Spring 2019
Teaching Assistant
University of Pennsylvania, Biomedical Graduate Studies

MATH3200: Elementary to Intermediate Statistics and Data Analysis Spring 2017
Teaching Assistant
Washington University in St. Louis, Department of Mathematics and Statistics

MATH310: Foundations for Higher Mathematics Spring 2016
Teaching Assistant
Washington University in St. Louis, Department of Mathematics and Statistics

SERVICE

Reviewer
Journal for the Society of Clinical Trials
NeuroImage
Human Brain Mapping

Committee Member

Student Representative Council

Representative of *Biomedical Graduate Student Association* to the *Graduate and Professional Student Association*

PRESENTATIONS

Weill Cornell Medical College

Oral Presentation

Title: "Automated Detection of Paramagnetic Rims in Multiple Sclerosis with MRI"

New York, NY

January 2020

Western North American Region of the International Biometric Society (WNAIR)

Poster Presentation

Title: "Pitfalls of Multi-Modal Image Segmentation in R"

Portland, OR

June 2019

American Society of Human Genetics (ASHG)

Poster Presentation

Title: "Identification of Retinal Cell Types with Single-Cell RNA Sequencing"

San Diego, CA

October 2018

PUBLICATIONS

Lou, Carolyn, Pascal Sati, Martina Absinta, Kelly Clark, Jordan D. Dworkin, Alessandra M. Valcarcel, Matthew K. Schindler, Daniel S. Reich, Elizabeth M. Sweeney, Russell T. Shinohara. "Fully Automated Detection of Paramagnetic Rims in Multiple Sclerosis Lesions on 3T Susceptibility-Based MR Imaging." (*Under Review*)

Lou, Carolyn, Mohamad Habes, Nicholas A. Illenberger, Ali Ezzati, Richard B. Lipton, Pamela A. Shaw, Alisa J. Stephens-Shields, Hamed Akbari, Jimit Doshi, Christos Davatzikos, Russell T. Shinohara. "Augmenting clinical trials in neurologic disease by leveraging machine-learning-based predictive biomarkers." (*Under Review*)

Berna, Ronald, Nandita Mitra, **Carolyn Lou**, Joy Wan, Ole Hoffstad, Bradley Wubbenhorst, Katherine L. Nathanson, and David J. Margolis. "Thymic Stromal Lymphopoietin and IL7R Variants are Associated with Persistent Atopic Dermatitis." *The Journal of Investigative Dermatology* (2020).

Lou, Carolyn, Nandita Mitra, Bradley Wubbenhorst, Kurt D'Andrea, Ole Hoffstad, Brian S. Kim, Albert Yan et al. "Association between fine mapping thymic stromal lymphopoietin and atopic dermatitis onset and persistence." *Annals of Allergy, Asthma & Immunology* 123, no. 6 (2019): 595-601.

Niu, Beifang, Adam D. Scott, Sohini Sengupta, Matthew H. Bailey, Prag Batra, Jie Ning, Matthew A. Wyczalkowski, Wen-Wei Liang, Qunyuan Zhang, Michael D McLellan, Sam Q Sun, Piyush Tripathi, **Carolyn Lou** et al. "Protein-structure-guided discovery of functional mutations across 19 cancer types." *Nature genetics* 48, no. 8 (2016): 827.