

Hanna Lindner

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EDUCATION

PhD in Biostatistics, University of Pennsylvania	August 2016-Present (Expected early '22)
MS in Biostatistics, University of Pennsylvania	May 2018
BS in Statistics (Summa Cum Laude), University of Central Florida	May 2016

RESEARCH EXPERIENCE

Dissertation, University of Pennsylvania June 2018-Present

Advised by Dr. Warren Bilker & Dr. Phyllis Gimotty

- Derived a novel statistical method for identifying atypical biomarkers by measuring their deviation from an assumed traditional model for applications in omics and big data studies which will result in one publication
- Recommended alternative statistical methods to biomedical researchers through publication and conference presentation, applicable for feature-selecting and analyzing atypical biomarkers

Master's Thesis, University of Pennsylvania August 2017-June 2018

Advised by Dr. Justine Shults & Dr. Deirdre Sawinski

- Developed novel exposure variables by integrating multiple large data sources to measure compliance with prescribed dialysis treatments, resulting in one publication
- Performed Cox regression and logistic regression model analyses in R to identify significant kidney dialysis noncompliance risk factors and assess their impact on post-transplant outcomes

Lab Rotations, University of Pennsylvania January 2017-September 2017

Principle Investigators: Dr. Michelle Ross, Dr. Michael Levy & Dr. Jason Roy

- Conducted simulations in R using a Bayesian-spatial model to optimize search strategy for controlling Chagas disease in Arequipa, Peru

Principal Investigator: Dr. Wei-Ting Hwang September 2016-January 2017

- Simulated a dose-finding study based on treatment-toxicity to target a dose of T-cell therapy with desired response rate

National Cancer Institute, National Institutes of Health Rockville, MD, USA

Division of Cancer Epidemiology and Genetics Intern

May 2016-August 2016

Principle Investigator: Philip Rosenberg

- Compared applications of a traditional and correlated Poisson age, period, cohort model to prostate cancer risk and investigated geographic and demographic disparities in the US using SEER data with analysis performed in R and MATLAB
- Presented findings in two conferences hosted by NIH

Volunteer and Extracurricular Commitments

Volunteer, RockHopper Cape Town, South Africa (virtual)

Collaborator: Justin Blake

November 2020-Present

- Built an R Shiny and Leaflet-based webapp to track acoustic-tagged sharks off the coast of South Africa and Mozambique to inform their conservation efforts and to engage citizen scientists

Intern, Giving Green

Philadelphia, PA (virtual)

Giving Green is incubated by IDinsight

February 2021- July 2021

- Collaborated with the Founder of Giving Green to revise current carbon offset recommendations, resulting in public-facing write-ups and interactive costing models
- Updated the recommendations to include theories of change and cost-effectiveness analyses, grounded in the philosophies of Fermi models and Effective Altruism

Climate Leaders @ Penn (CL@P) Fellow, CL@P

University of Pennsylvania

Philadelphia, PA, USA

January 2021-April 2021

- Join other graduate student fellows in the pilot program modeled after Harvard's Climate Leaders Program to receive monthly crash courses on a range of climate topics
- **Career Exploration Fellow, University of Pennsylvania Office of Sustainability** Feb. 2020-June 2020
- *Hosts: Natalie Walker and Madeline Schuh*
- Developed a web-based waste dashboard using R Shiny to assess and visualize longitudinal trajectory of waste (solid waste, recycling, and compost) for all campus buildings to be used by advisory committees to help meet the goals of Penn's Climate Action Plan 3.0

Publications

- Muira, J., **Lindner, H.**, Karakousis G.C., Gimotty, P.A. Conditional Survival Estimates for Merkel Cell Carcinoma Reveals Improved Prognosis Over Time. *JAMA Dermatology* (under review). October 2021
- Sawinski D., **Lindner H.**, Shults J., Locke J.E., Cohen, J.B., MacLennan P.A., Reese, P.P. A retrospective cohort study of dialysis nonadherence and kidney transplant outcomes. *American Journal of Kidney Diseases*. September 2021.
- **Lindner, H.**, Bilker, W. & Gimotty, P. A regression approach to estimating the diagnostic likelihood ratio function for the evaluation of diagnostic tests. *Statistics in Medicine* (Under R&R review). September 2021
- Modi, M.B., Gimotty, P., Ming, M.E., Jariwala, N., Elenitsas, R., Miller, C., **Lindner, H.**, Moshiri, A.S., Schwartz, L.E., Lal, P., Reyes, M.C., Elder, D.E., Xu, X. Urethral involvement is associated with higher mortality and local recurrence in vulvar melanoma: a single institutional experience. *Human Pathology*. July 2020
- Talton, W., **Lindner, H.**, & Rovito, M. J. Increasing Urologic Care Ratios: Implications of Male Patient Care in Florida. *American journal of men's health*, 2016.

Presentations

- "A Regression Approach to Estimating the Discrete Diagnostic Likelihood Ratio for Nontraditional Biomarkers". JSM; Philadelphia, PA; August 2020.
- "Nonparametric Procedure for Comparing Dependent Kappa Statistics". ENAR; Philadelphia, PA; March 2019.
- "Regional Trends and Patterns in Prostate Cancer Incidence Among Blacks and Whites in the United States". Symposium on Cancer Health Disparities; Bethesda, MD; October 2016

Computing

Software and programming languages

- Expert: R
- Working knowledge: Python, SAS, Stata, SPSS, MATLAB, C

Applications

- R Shiny, R Blogdown, R Markdown, GitHub, LaTeX,