

Lucy F. Robinson

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EMPLOYMENT

- Drexel University School of Public Health**, Department of Epidemiology and Biostatistics 2022-
Associate Teaching Professor of Biostatistics
- Drexel University School of Public Health**, Department of Epidemiology and Biostatistics 2011-2022
Assistant Teaching Professor of Biostatistics
- Johns Hopkins University**, Department of Applied Mathematics and Statistics 2009-2011
Assistant Research Professor
- Columbia University**, Department of Statistics 2004-2009
Teaching Assistant

EDUCATION

- Columbia University**, Department of Statistics 2009
Doctor of Philosophy in Statistics
Advisor: Professor Martin Lindquist
Research: *Statistical methods for functional MRI data*
- Columbia University**, Department of Statistics 2005
Master of Arts in Statistics
- Barnard College, Columbia University** 2003
Bachelor of Arts in Mathematics-Statistics (Cum Laude)

TEACHING

- Columbia University**
Instructor
Introduction to Statistical Reasoning, Introduction to Statistics 2006, 2007
- Johns Hopkins University**,
Professor
Applied Statistics and Data Analysis, Mathematical Modeling and Consulting,
Statistical Analysis II, Chance and Risk 2009-2011

Drexel University Dornsife School of Public Health Philadelphia

Professor

Statistical Machine Learning, Advanced Statistical Computing, Biostatistics I, Readings in 2011-
Biostatistics, Intermediate Biostatistics I, Intermediate Biostatistics II, Design and Analysis of
Epidemiologic Studies, Public Health Data analysis,

PUBLICATIONS

'Time-varying effects of COVID-19 Vaccination on Symptomatic and Asymptomatic Infections in a
Prospective University Cohort: A Real-World Effectiveness Study'

Lucy Robinson, Anna Feting, Isamu Isozaki, Vicki Seyfert-Morgolis, Mitchell Jay; Edward Kim,
Noreen M. Robertson, Charles B. Cairns,
(In revision)

'Disentangling impacts of multiple pollutants on acute cardiovascular events in New York city: A case-
crossover analysis'

JL Humphrey, EJ Kinnee, LF Robinson, JE Clougherty Environmental research 2024

'Do respiratory virus infections modify associations of asthma exacerbation with aeroallergens or fine
particulate matter? A time series study in Philadelphia PA'

W Huang, LH Schinasi, CC Kenyon, AH Auchincloss, K Moore, S Melly, Steven Melly, Lucy F
Robinson, Christopher B Forrest, Anneclaire J De Roos
International Journal of Environmental Health Research, 1-12

'A Coronavirus Cohort Case Study - Dataset Trends using Machine Learning Methods,'

Edward Kim, Lucy Robinson, Isamu Isozaki, Noreen Robertson, Charles B Cairns, Satvik Tripathi,
Vicki Seyfert-Margolis *2023 IEEE International Conference on Bioinformatics and Biomedicine
(BIBM)*, Istanbul, Turkiye, 2023, pp. 4213-4219,

'Obesity Weight Loss Phenotypes in CKD: Findings From the Chronic Renal Insufficiency Cohort Study.'

Harhay, Meera N, Kim, Yuna, Milliron, Brandy-Joe, Robinson, Lucy F, Kidney international reports.
2023; 8(7)

'Evaluation of evidence for interaction between PM2.5 and aeroallergens on childhood asthma exacerbation
in Philadelphia, PA, 2011 to 2016.'

Huang, Wanyu, Schinasi, Leah H, Kenyon, Chén C, Auchincloss, Amy H, Moore, Kari, Melly, Steven,
Robinson, Lucy F, Forrest, Christopher B, De Roos, Anneclaire J. Environmental research. 2023; 234

'A participatory approach to designing and implementing an occupational health intervention for the nail
salon community in the Greater Philadelphia region.'

Huỳnh TB, Nguyễn DT, Vũ N, Robinson L, Trần E, Nguyễn N, Carroll-Scott A, Burstyn I.
Ann Work Expo Health. 2023 Sep 21;67(8):938-951.

'Gallbladder Disease and Risk of Type 2 Diabetes in Postmenopausal Women: A Women's Health Initiative
Study' Ako Adams Ako, Yvonne L. Michael, Lucy F. Robinson, Jean Wactawski-Wende, Aladdin H.

Shadyab, Lorena Garcia, Bede N. Nriagu, Nazmus Saquib, Rami Nassir, Simin Liu, Robert B. Wallace
Accepted to *America Journal of Epidemiology*

'Assessment of cerebral oxygenation response to hemodialysis using near-infrared spectroscopy (NIRS):
Challenges and solutions'

Ardy Wong, Lucy Robinson, Seena Soroush, Aditi Suresh, Dia Yang, Kelechi Madu, Meera N.
Harhay and Kambiz Pourrezaei (2021)
Journal of Innovative Optical Health Sciences

'Association Between Midpregnancy Polyunsaturated Fatty Acid Levels and Offspring Autism Spectrum Disorder in a California Population-Based Case-Control Study'

Lyall, Kristen; Windham, Gayle C; Snyder, Nathaniel W; Kuskovsky, Rostislav; Xu, Peining; Bostwick, Anna; Robinson, Lucy; Newschaffer, Craig J; (2021)

American journal of epidemiology (190)

Associations of Job Strain, Stressful Life Events, and Social Strain With Coronary Heart Disease in the Women's Health Initiative Observational Study'

C Wang, F Lê-Scherban, J Taylor, E Salmoirago-Blotcher, M Allison, M Allison, D Gefen, L **Robinson**, YL Michael (2021)

Journal of the American Heart Association 10 (5), e017780

'Women's Occupational Patterns and Later Life Physical Functioning

Palumbo, Aimee J; Cannuscio, Carolyn; De Roos, Anneclaire J; Robinson, Lucy; Mossey, Jana; Wallace, Robert; Garcia, Lorena; Shadyab, Aladdin H; Sealy-Jefferson, Shawnita; Michael, Yvonne; (2020)

Journal of aging and health (32)

'Heavy precipitation, drinking water source, and acute gastrointestinal illness in Philadelphia, 2015-2017'

De Roos, Anneclaire J; Kondo, Michelle C; Robinson, Lucy F; Rai, Arjita; Ryan, Michael; Haas, Charles N; Lojo, José; Fagliano, Jerald A; (2020)

ploS one (15)

'Approaches to obesity management in dialysis settings: renal dietitian perspectives'

Suresh, Aditi; Robinson, Lucy; Milliron, Brandy-Joe; Leonberg, Kristin; McAdams-DeMarco, Mara; Earthman, Carrie; Klassen, Ann; Harhay, Meera N; (2020)

Journal of Renal Nutrition (30)

'Developmental trajectories of illicit drug use, prescription drug misuse and cannabis practices among young adult cannabis users in Los Angeles'

Fedorova, Ekaterina V; Schragger, Sheree M; Robinson, Lucy F; Roth, Alexis M; Wong, Carolyn F; Iverson, Ellen; Lankenau, Stephen E; (2020)

Drug and Alcohol review (69)

'Mid-Pregnancy Polyunsaturated Fatty Acid Levels in Association with Child Autism Spectrum Disorder in a California Population-Based Case-Control Study.

Lyall, Kristen; Windham, Gayle C; Snyder, Nathaniel W; Kuskovsky, Rostislav; Xu, Peining; Bostwick, Anna; Robinson, Lucy; Newschaffer, Craig J;; (2020)

American Journal of Epidemiology

'Multiple victimizations and overdose among women with a history of illicit drug use'

Ataiants, Janna; Mazzella, Silvana; Roth, Alexis M; Robinson, Lucy F; Sell, Randall L; Lankenau, Stephen E; (2020)

Journal of interpersonal violence

'Polyunsaturated Fatty Acids in Newborn Bloodspots: Associations With Autism Spectrum Disorder and Correlation With Maternal Serum Levels'

Bostwick, Anna; Snyder, Nathaniel W; Windham, Gayle C; Whitman, Casey; Pearl, Michelle; Robinson, Lucy; Newschaffer, Craig J; Lyall, Kristen;; (2020)

Autism Research (13)

'Morbid Obesity: A Growing Barrier to Early Kidney Transplant Wait-Listing in the United States'

Lavenburg, L; Weinhandl, E; Robinson, L; Milliron, B; Earthman, C; Klassen, A; Harhay, M; (2020)

American Journal of Transplantation (20)

'Overdose response among trained and untrained women with a history of illicit drug use: a mixed-methods examination

Ataiants, Janna; Mazzella, Silvana; Roth, Alexis M; Sell, Randall L; Robinson, Lucy F; Lankenau, Stephen E; (2020)
Drugs: Education, Prevention and Policy

'Illicit drug use and prescription drug misuse among young adult medical cannabis patients and non-patient users in Los Angeles

Fedorova, Ekaterina V; Schragger, Sheree M; Robinson, Lucy F; Cepeda, Alice; Wong, Carolyn F; Iverson, Ellen; Lankenau, Stephen E; (2020)
Drug and alcohol dependence (198)

'Geographic Analysis of Blood Lead Levels and Neighborhood-Level Risk Factors Among Children Born in 2008-2010.'

Taggert, Elizabeth; Figgatt, Mary; Robinson, Lucy; Washington, Raynard; Kotkin, Natalie; Johnson, Caroline;; (2019)
Journal of Environmental Health (82)

Social Susceptibility to Urban Air Pollution in Cardiovascular Disease.'

Clougherty, Jane; Humphrey, Jamie; Kinnee, Ellen; Kubzansky, Laura; Reid, Colleen; McClure, L; Robinson, Lucy; (2019)
Environmental Epidemiology (16)

'Putting Co-Exposures on Equal Footing: An Ecological Analysis of Same-Scale Measures of Air Pollution and Social Factors on Cardiovascular Disease in New York City'

Clougherty, Jane; Humphrey, Jamie; Kinnee, Ellen; Kubzansky, Laura; Reid, Colleen; McClure, L; Robinson, Lucy;; (2019)
Journal of Environmental Health (82)

'Geographic Analysis of Blood Lead Levels and Neighborhood-Level Risk Factors Among Children Born in 2008-2010.'

Taggert, Elizabeth; Figgatt, Mary; Robinson, Lucy; Washington, Raynard; Kotkin, Natalie; Johnson, Caroline;; (2019)
Journal of Environmental Health (82)

'An Evaluation of Changes in Opinion from an Expert Workshop on Turbidity in Drinking Water Supplies and Acute Gastrointestinal Illness' (2018)

A.Rai, P.L. Gurian, M.C. Kondo, I.Zakeri, **L.F. Robinson**, A.J. De Roos
Int. J. of Environmental Technology and Management (21)

'Neighborhood price of healthier food relative to unhealthy food and its association with type 2 diabetes and insulin resistance: The multi-ethnic study of atherosclerosis,'

D.M. Kern, A.H. Auchincloss, M.F. Stehr, A.V. Diez Roux, K.A. Moore, G.P. Kanter, **L.F. Robinson** (2018)
Preventive Medicine, 106

'Neighborhood prices of healthier and unhealthier foods and associations with diet quality: the MultiEthnic Study of Atherosclerosis. '

D.M. Kern, A.H. Auchincloss, M.F. Stehr, A.V. Diez Roux, K.V. Moore LV, G. Pham-Kanter and **LF Robinson (2017)**
Int J Environ Res Public Health, 11

'Healthy and Unhealthy Food Prices across Neighborhoods and Their Association with Neighborhood Socioeconomic Status and Proportion Black/Hispanic.'

Kern DM*, Auchincloss AH, **Robinson LF**, Stehr M, Pham-Kanter. (2017)
Journal of Urban Health, 94

'Impact of taxes and hospitality bans on area-level variation in cigarette prices and smoking prevalence 2001-2011.'

Ballester LS*, Auchincloss AH, **Robinson LF**, Mayne SL (2017).
Int J Environ Res Public Health, 14(3).

Review of Epidemiological Studies of Drinking-Water Turbidity in Relation to Acute Gastrointestinal Illness

A.J. De Roos, P.L. Gurian, **L.F. Robinson**, A. Rai, I. Zakeri and M.C. Kondo (2017)
Environ Health Perspectives, 125(8)

'No contribution of lifestyle and environmental exposures to gender discrepancy of liver disease severity in chronic hepatitis b infection: Observations from the Haimen City cohort'

J. Sun , **L.F. Robinson**, N.L. Lee, S. Welles, A. A. Evans (2017)
PLOS ONE, 12(4)

'Work Characteristics Associated with Physical Functioning in Women'

A. J. Palumbo, A.J. De Roos , C. Cannuscio 3, **L.F. Robinson** , J. Mossey , J. Weitlauf, L. Garcia , R. Wallace and Y. Michael (2017)
Int. J. Environ. Res. Public Health 14(4),

'Thoracic spine morphology of a pseudo-biped animal model (kangaroo) and comparisons with human and quadruped animals'

S. Balasubramanian, J.R. Peters, **L.F. Robinson**, S. Singh , R.W. Kent. (2016)
European Spine Journal 25(12)

'Neighborhood variation in the price of soda relative to milk and its association with neighborhood socioeconomic status and race'

D.M. Kern, **L.F. Robinson** , L.L. Ballester, A. Auchincloss.
Public Health Nutrition. 2016;

'The temporal instability of resting state network connectivity in intractable epilepsy'

L.F. Robinson, P. Barnett, G. Doucet, X. He, , and J. Tracy (2017)
Human Brain Mapping, 38(1)

'Age-and gender-related changes in pediatric thoracic vertebral morphology'

J. Peters, C. Chandrasekaran, **L.F. Robinson**, S.E. Servaes, R.M. Campbell, S. Balasubramanian (2015)
The Spine Journal, 15(5)

'Dynamic functional connectivity using state-based dynamic community structure: Method and application to opioid analgesia

L.F. Robinson, L.A. Atlas and T.D. Wager (2015) *NeuroImage*, 108, 274-291

'Change point Estimation in Multi-subject FMRI Studies'

L.F. Robinson, T.D. Wager and M.A. Lindquist (2010)
Neuroimage 49(2):1581-92. Epub 2009 Sep 4.

'Spatial Clustering of Response Curves'

L.F. Robinson, T. D. Wager, L. Atlas, M.A. Lindquist

Proceedings of the Annual Meeting of the Organization for Human Brain Mapping, 2009

'Detecting Shifts in Correlation and Variability with Application to ENSO-Monsoon
Rainfall Relationships '

L.F. Robinson, V. H. de la Peña, Yochanan Kushnir (2008)

Theoretical and Applied Climatology, 94, 215-224

GRANT FUNDING

ACTIVE:

1R01DK124388-01 (Harhay PI)	08/01/2020-05/31/2025	5% effort
NIH-NIDDKD	\$199,999	
Identifying Healthy and High-Risk Weight Loss Phenotypes to Optimize Obesity Management in End Stage Kidney Disease		
1R01ES030717-01 (Clougherty and Sheffield PIs)	08/1/2019-04/30/2024	5%
NIH	\$371,009	
Pediatric Health and Extreme Weather - Health Effects of Ambient Temperature (PHEW - HEAT)		
1R01DC017181-01A1 (Vivanti)	04/15/2019 – 03/31/2022	10% effort
NIH	\$382,360	
Prevalence and profile of treatment non-responders in Autism Early Intervention		
R01 (Newschaffer)	09/15/2017 – 08/31/2021	7.5% effort
NIH	\$1,449,247.00	
Prenatal Exposure to Endocrine Disrupting Chemical Mixtures and ASD Risk		
W81XWH-16-1-0753 (Lyll)	09/15/2017 – 08/31/2021	5% effort
Department of Defense	\$518,857.00	
Prenatal polyunsaturated fatty acid levels and risk of autism spectrum disorder		
R21OH011740-01 (Huynh)	07/01/2020 – 06/30/2021	5% effort
NIOSH	\$150,157	
A feasibility study to develop a multilevel occupational health intervention program for nail salon employees and owners		

INACTIVE:

K23DK105207 (PI: Harhay MN)	01/01/2020-04/30/2020	0.8 CM
NIH/NIDDK	\$764,078	
Patterns and Implications of Functional Decline Among Kidney Transplant Candidates		
PA CURE FY18 (Harhay)	06/1/2018-01/31/2020	0.6 CM
Pennsylvania Department of Health	\$75,000	
Implications of Unstable Cerebral Oxygenation on the Safety and Tolerability of Hemodialysis		
15-2 (Clougherty)	06/30/2018-09/30/2019	0.6 CM
Health Effects Institute (HEI)	\$1,858,479	
Susceptibility to Multiple Air Pollutants in Cardiovascular Disease		

R41CA221595-DRXL (Shih)
NIH

06/1/2018 -09/30/2019
\$876,400.00

.36 CM

Molecular, Cancer-Specific, Intraoperative Imaging of Breast Surgical Margin,

National Institute of Health

'The influence of prenatal maternal exposures on fetal sterol metabolomics'
Co-Investigator, 15% effort; PI: Snyder, 2016-2017

National Institute of Environmental Health Sciences

'Prospective Evaluation of Air Pollution, Cognition, and Autism from Birth Onward'
Co-Investigator, 5% effort; PI: Volk, 2016-2017

Scoliosis Research Society

'Structure and Growth of the Thoracolumbar Spine and Ribs in Normative Pediatric and AIS subjects - A Comprehensive Multi-Center and multi-Modal Validation Study'
Co-Investigator, 3% effort; PI: Balasubramanian, 2015-2017

Independence Blue Cross

'Translational Effectiveness of Large Scale Simulations (TELSS)'
Co-Investigator, 5% effort; PI: Ponnuru, 2015-2016

Water Research Foundation

'Evaluation of Scientific Literature on Turbidity Associated with the Risk of Gastrointestinal (GI) Illness'
Co-Investigator, 5% effort; PI: DeRoos, 2015

National Heart, Lung, and Blood Institute

'Neighborhoods and cardiovascular risk in a multiethnic cohort'
Co-Investigator, 5% effort; PI: Auchincloss, 2014-2015

Scoliosis Research Society

'Effects of Spinal Fusion and Instrumentation on Rib Position, Costovertebral Joint Geometry and Vertebral Morphology in Adolescent Idiopathic Scoliosis'
Co-Investigator, 4% effort; PI: Balasubramanian, 2014-2015

THESIS COMMITTEES

'The Role of Biologics in the Treatment of Ulcerative Colitis'
Andrew Klink (2014)

'Gender, Reproductive, and Lifestyle Risk Factors Associated with Liver Disease Severity in Chronic hepatitis B Infection'
Jing Sun (2015)

'The burden of infection-associated and common cancers among South Asians and other Asian subpopulations in the United States, 1999-2009'
Neena George (2014)

'The Influence of Work Patterns and Work Characteristics on Women's Later Life Physical Functioning'
Aimee Palumbo (2016)

'The price of unhealthy food and its impact on diet quality, diabetes prevalence, and insulin resistance in an elderly population, and the differing effect by socioeconomic status'
Dave Kern (2016)

'Association of Sexual Orientation with Risk of Mental Health Disorders and Cardiovascular Diseases: Results from a National Survey'
Lezhou Wu (2017)

'Stress and Coronary Heart Disease in Women: Mechanisms and Gender Differences'
Conglong Wang (2018)

'Overdose among street-involved women drug users: examining the impact of violence on overdose risks and utilization of overdose prevention training'
Janna Ataintis (2019, expected)

'Illicit drug use and prescription drug misuse among young adult medical marijuana patients and non-medical marijuana users in Los Angeles'
Ekaterina Federova (2018)

'Prenatal nutritional supplementation and autism spectrum disorders in two European population-based cohorts'
Elizabeth DeVilbiss (2018)

'"Time of the month": A mixed-method study to understand and improve Menstrual Health and Hygiene Management in Rural North India'
Astha Ramaiya (2018)

'Probabilistic Multilevel Canonical Correlation Analysis'
Yuna Kim (2022, expected)

'Air pollution, aeroallergen, and respiratory viruses – effect modification and prediction for childhood asthma exacerbation in the Philadelphia metropolitan area'
Wanyu Huang (2022, expected)

AWARDS & FELLOWSHIPS

Teaching award 2021
Drexel University Dornsife School of Public Health

Faculty Fellowship
Columbia University, Department of Statistics

Howard Levene Award for Excellence in Teaching 2006
Columbia University

Teagle Fellowship 2008-2009
Teagle Collegium for Psychological Science and Student Learning

National Science Foundation Graduate Fellowship Integrative Graduate Education and Research Traineeship (IGERT)	2003-2006
Institute For Mathematical Statistics Young Researcher Travel Award	2010

INVITED PRESENTATIONS

Institute for Operations Research and Management Science (INFORMS) Annual Meeting Washington, DC	2008
Time Series Analysis in Neuroimaging Workshop, Columbia University New York, NY	2009
Complex Networks Modeling Workshop, Statistical and Applied Mathematical Sciences Institute (SAMSI) Research Triangle Park, NC	2010
Drexel University School of Biomedical Engineering, Science and Health Systems Philadelphia, PA	2012
Johns Hopkins University, Department of Applied Mathematics and Statistics Baltimore, MD	2013
American statistical Association Worskop on statistical Methods in imaging Baltimore, MD	2015

CONFERENCE PRESENTATIONS

Joint Statistical Meetings Denver, Colorado	2008
Organization for Human Brain Mapping Annual Meeting Melbourne, Australia	2008
Organization for Human Brain Mapping Annual Meeting San Francisco, CA	2009
Minghui Yu Memorial Research day New York, NY	2009
Joint Statistical Meetings Washington, DC	2009
Joint Statistical Meetings Vancouver, BC	2010
Joint Statistical Meetings Miami, FL	2011
International Biometrics Society ENAR Annual Meeting Orlando, FL	2013
Joint Statistical Meetings Montreal, QC	2013
Organization for Human Brain Mapping Annual Meeting Seattle, WA	2013
international Biometrics society ENAR Annual Meeting Miami, FL	2015
Organization for Human Brain Mapping Annual Meeting Honolulu, HI	2015
Joint Statistical Meetings Montreal, QC	

OTHER EXPERIENCE

Drexel University Biostatistics Service Center Consultant	2011-
	2008
National Science Foundation Institute for Pure and Applied Mathematics (IPAM) Summer Student: Mathematics In Brain Imaging	
Columbia University Statistical Consulting Service Consultant. Provided statistical support to researchers from fields including	2006-2008

public health, education, ecology, climatology, and political science.

New York Public Interest Research Group (NYPIRG)

Research Assistant. Performed analysis on New York City public transportation data for 'State of the Subways' report.

2001

Schoolhouse tutors, New York, NY

Math Tutor

2006-2008

COMMUNITY ACTIVITIES

Referee

Biometrics, Journal of Computational and Graphical Statistics, Journal of the American Statistical Association

Graduate Student Sponsored Career Conference, Columbia University

Co-organized symposium with over 100 attendees

2008

Women in Science at Columbia

Departmental Representative

2007-

New York City Science and Engineering Fair

Scientific Reviewer

2009

Girls' Science Day

Experiment Leader

2007

AFFILIATIONS:

American Statistical Association, Institute for Operations Research and Management science, Organization for Human Brain Mapping, International Biometric Society, Institute for Mathematical Statistics

CITIZENSHIP:

USA