

CURRICULUM VITAE

Brian K. Lee

PERSONAL DATA

Department of Epidemiology and Biostatistics	Phone: 267-359-6052
Drexel University School of Public Health	Fax: 267-359-6201
3215 Market St, 5 th floor	Email: bklee@drexel.edu
Philadelphia, PA 19104	Webpage: https://goo.gl/Q9nwtu

EDUCATION AND TRAINING

- 2009 PhD Epidemiology, Johns Hopkins University
Advisor: Thomas A. Glass
Thesis: Neighborhood psychosocial hazards and gene-environment interaction toward the cognitive function of older adults.
- 2006 MHS Epidemiology, Johns Hopkins University
Advisor: Li-Ching Lee
Thesis: Associations of cortisol metrics and cognitive function in a population-based sample of older adults.
- 2003 AB Biological Anthropology, Harvard College
Advisor: Daniel E. Lieberman
Thesis: Evaluation of the role of neural circuitry changes in human brain evolution: mechanistic testing with a rat model.

PROFESSIONAL EXPERIENCE

- 2018 Visiting researcher (sabbatical)
Queensland Brain Institute
University of Queensland, Brisbane, Australia
- 2015- Associate professor (with tenure)
Department of Epidemiology and Biostatistics
Drexel University School of Public Health, Philadelphia, PA
- 2014- Affiliate faculty
Department of Medical Epidemiology and Biostatistics
Department of Public Health Sciences
Karolinska Institutet, Stockholm, Sweden
- 2012- Research fellow
A.J. Drexel Autism Institute, Philadelphia, PA

- 2009-2015 Assistant professor
 Department of Epidemiology and Biostatistics
 Drexel University School of Public Health, Philadelphia, PA
- 2004 Intern under Jonathan Rosen, PhD
 Center for the Integration of Medicine and Innovative Technology,
 Cambridge, MA
- 2003-04 Intern under Laura J. Esserman, MD, MBA
 University of California San Francisco Breast Care Center
- 2000-03 Research assistant for Alfred I. Geller, PhD
 Department of Neurology
 Harvard Medical School, Boston, MA

EDITORIAL ACTIVITIES

Editorial board: Autism Research (2016-)

Peer Review: Journals

American Journal of Clinical Nutrition, American Journal of Epidemiology, American Journal of Psychiatry, Annals of Epidemiology, Annals of Internal Medicine, Autism, Autism Research, BMC Bioinformatics, BMC Medical Ethics, Brain Behavior and Immunity, British Medical Journal, Canadian Studies in Population, Childhood Obesity, Depression and Anxiety, Environmental Health, Environmental Health Perspectives, Epidemiologic Methods, Epidemiology, European Journal of Nutrition, Eurosurveillance, International Journal of Environmental Research in Public Health, International Journal of Epidemiology, International Journal of Health Geographics, Journal of Aging Research, Journal of Alzheimer's Disease, Journal of the American Academy of Child and Adolescent Psychiatry, Journal of Autism and Developmental Disorders, Journal of Causal Inference, Journal of Clinical Psychopharmacology, Journal of Epidemiology and Community Health, Molecular Psychiatry, Multivariate Behavioral Research, Neurobiology of Aging, New England Journal of Medicine, Pain Medicine, Pediatric and Perinatal Epidemiology, Pediatric Drugs, Pediatrics, Pharmacoepidemiology and Drug Safety, Psychoneuroendocrinology, Social Science and Medicine, Statistics in Medicine, Translational Psychiatry, Vox Sanguinis

Peer Review: Conference abstracts

- Congress of Epidemiology abstract reviewer
- International Meeting for Autism Research abstract reviewer

Peer Review: Grants

- University of Michigan Geriatrics Center
- Alzheimer's Society of Ireland
- Genome Alberta

- National Cancer Institute SEP ZCA1 SRLB-4
- UK Medical Research Council
- Department of Defense Autism Research Program
- Wellcome Trust

HONORS AND AWARDS

2014	One of the 10 most influential autism papers in 2014 as selected by the Simons Foundation Autism Research Initiative
2014	Top 2% of reviewers, <i>Journal of Autism and Developmental Disorders</i>
2014, 2016	Drexel International Travel Award
2013	Top reviewer award, <i>Annals of Internal Medicine</i>
2013	Top reviewer award, <i>Pharmacoepidemiology and Drug Safety</i>
2013	One of 12 Emerging Scholars, selected by <i>Diverse: Issues in Higher Education</i> magazine
2003	AB Cum laude, Harvard College
2003	Ames Award, 1 of 20 nominees selected for outstanding community service, Harvard College
2003	Harvard University Center for Public Interest Careers Fellowship

PUBLICATIONS

* Indicates student under supervision

† Indicates corresponding authorship

Journal Articles – Submitted / Under Revision

Lee BK[†], Eyles D, Magnusson C, Newschaffer CJ, McGrath J, Kvaskoff D, Ko P, Dalman C, Karlsson H, Gardner RM. Neonatal vitamin D levels and autism spectrum disorders: findings from the Stockholm Youth Cohort. *Submitted*.

Lee BK[†], Gross R, Francis RW, Karlsson H, Schendel DE, Sourander A, Reichenberg A, Parner ET, Hornig M, Yaniv A, Leonard H, Sandin S. Birth seasonality and risk of autism spectrum disorder. *Submitted*.

*Xie S, Karlsson H, Dalman C, Widman L, Rai D, Gardner RM, Magnusson C, Schendel DE, Newschaffer CJ, **Lee BK**[†]. Family history of mental and neurologic disorders and risk of autism. *Submitted*.

*Tan Y, Thomas S, **Lee BK**[†]. Parent-reported prevalence of food allergies in children with autism spectrum disorder: National Health Interview Survey, 2011-2015. *Submitted*.

Gardner RM, Dalman C, Rai D, **Lee BK**, Karlsson H. The association of paternal IQ with autism spectrum disorders and its comorbidities. *Submitted*.

Wang C, le Ray I, **Lee BK**, Wikman A, Reilly M. Contribution of modifiable and unmodifiable risk factors to venous thromboembolism during the antepartum, peripartum and postpartum periods: a population-based cohort study of more than one million births. *Submitted*.

Journal Articles – Published / In Press

2018

Oleguer Plana-Ripoll, Carsten Bøcker Pedersen, Yan Holtz, Michael Benros, Søren Dalsgaard, Peter De Jonge, Chun Chieh Fan, Louisa Degenhardt, Andrea Ganna, Aja Neergaard Greve, Jane Gunn, Kim Moesgaard Iburg, Lars Vedel Kessing, **Brian K. Lee**, Carmen C.W. Lim, Ole Mors, Merete Nordentoft, Anders Prior, Annelieke M. Roest, Sukanta Saha, Andrew Schork, James G. Scott, Kate M. Scott, Terry Stedman, Holger J. Sørensen, Thomas Werge, Harvey A. Whiteford, Thomas Munk Laursen, Esben Agerbo, Ron C. Kessler, Preben Bo Mortensen, John J. McGrath. The pervasive nature of comorbidity within mental disorders: a comprehensive, nationwide cohort study. *JAMA Psychiatry*, in press.

Zhong Y, Auchincloss AH, **Lee BK**, Pham-Kanter G. Short term effect of Philadelphia beverage tax on beverage consumption. *American Journal of Preventive Medicine*, 2018 Jul 55(1): 26-34. <https://www.ncbi.nlm.nih.gov/pubmed/29656917>

le Ray I, **Lee B**, Wikman A, Reilly M. Evaluation of a decision tree for efficient antenatal red blood cell antibody screening. *Epidemiology*, online 2018 Jan 15. <https://www.ncbi.nlm.nih.gov/pubmed/29337843>

2017

Heuvelman H, Abel K, Wicks S, Gardner R, Johnstone E, **Lee BK**, Magnusson C, Dalman C, Rai D. Gestational age at birth and risk of intellectual disability without a common genetic cause. *European Journal of Epidemiology*, 2017. Online December 6, 2017. <https://www.ncbi.nlm.nih.gov/pubmed/29214412>

*DeVilbiss EA, Magnusson C, Gardner RM, Rai D, Newschaffer CJ, Lyall K, Dalman C, **Lee BK**. Antenatal nutritional supplementation and autism spectrum disorders in the Stockholm youth cohort: population based cohort study. *BMJ*, 2017 Oct 4;359:j4273. <https://www.ncbi.nlm.nih.gov/pubmed/28978695>

*Xie S, Heuvelman H, Magnusson C, Rai D, Lyall K, Newschaffer CJ, Dalman C, † **Lee BK (co-senior author)**, Abel K. Gestational age at birth and autism spectrum disorders with and without intellectual disability. *Paediatric and Perinatal Epidemiology*, 2017 Sep 12. doi: 10.1111/ppe. <https://www.ncbi.nlm.nih.gov/pubmed/28898924>

Rai D, **Lee BK (co-first author)**, Dalman C, Newschaffer CJ, Lewis G, Magnusson C. Antidepressants during pregnancy and offspring autism: population-based cohort study. *BMJ*, 2017 Jul 19; 358:j2811. <https://www.ncbi.nlm.nih.gov/pubmed/28724519>

Lee BK, Arver S, Widman L, Gardner RM, Magnusson C, Dalman C, Kosidou K. Maternal hirsutism and autism spectrum disorders in offspring. *Autism Research*, 2017 Apr 6. <https://www.ncbi.nlm.nih.gov/pubmed/28383189>

Kerns CM, Newschaffer CJ, Berkowitz S, **Lee BK**. Examining the association of autism and adverse childhood experiences in the National Survey of Children's Health: The important role of income and co-occurring mental health conditions. *Journal of Autism and Developmental Disorders*, 2017 Jul;47(7):2275-2281. <https://www.ncbi.nlm.nih.gov/pubmed/28378271>

Park BY, **Lee BK**, Burstyn I, Tabb LP, Keelan JA, Whitehouse AJ, Croen LA, Fallin MD, Hertz-Picciotto I, Montgomery O, Newschaffer CJ. Umbilical cord blood androgen levels and ASD-related phenotypes at 12 and 36 months in an enriched risk cohort study. *Molecular Autism*, 2017 Jan 31;8:3. <https://www.ncbi.nlm.nih.gov/pubmed/28163867>

Lyll K, Croen L, Daniels J, Fallin MD, Ladd-Acosta C, **Lee BK**, Park BY, Snyder NW, Schendel D, Volk H, Windham GC, Newschaffer C. The changing epidemiology of autism spectrum disorders. *Annual Review of Public Health*, 2017. 38: 81-102. <https://www.ncbi.nlm.nih.gov/pubmed/28068486>

*Thomas S, Hovinga ME, Rai D, **Lee BK**. Prevalence of co-occurring epilepsy and autism spectrum disorder: the U.S. National Survey of Children's Health 2011-12. *Journal of Autism and Developmental Disorders*, Jan 2017, 47: 1, 224-229. <https://www.ncbi.nlm.nih.gov/pubmed/27752862>

2016

Halmin M, Rostgaard K, **Lee BK**, Wikman A, Norda R, Nielsen KR, Pedersen OB, Holmqvist J, Hjalgrim H, Edgren G. Length of Storage of Red Blood Cells and Patient Survival After Blood Transfusion: A Binational Cohort Study. *Annals of Internal Medicine*, 2017 Feb 21;166(4):248-256. <https://www.ncbi.nlm.nih.gov/pubmed/27992899>

Kosidou K, Dalman C, Widman L, Arver S, **Lee BK**, Magnusson C, Gardner RM. Maternal polycystic ovary syndrome and the risk of attention-deficit/hyperactivity disorder in the offspring. *Biological Psychiatry*, 2016 Oct 6. <https://www.ncbi.nlm.nih.gov/pubmed/27889187>

Singer AB, Windham GC, Croen LA, Daniels JL, **Lee BK**, Schendel DE, Fallin MD, Burstyn I. Maternal exposure to occupational asthmagens during pregnancy and autism spectrum disorder in the Study to Explore Early Development. *Journal of Autism and Developmental Disorders*, 2016 Nov;46(11):3458-3468. <https://www.ncbi.nlm.nih.gov/pubmed/27511194>

Lee BK, le Ray I, Sun J, Wikman A, Reilly M, Johansson S. Haemolytic and non-haemolytic neonatal jaundice have different risk factor profiles. *Acta Paediatrica*, 2016 May 13. <https://www.ncbi.nlm.nih.gov/pubmed/27173507>

Magnusson C, Lundberg M, **Lee BK**, Rai D, Karlsson H, Gardner R, Kosidou K, Arver S, Dalman C. Maternal vitamin D deficiency and the risk of autism spectrum disorders: population-

based study. *British Journal of Psychiatry Open*, Apr 2016, 2 (2) 170-172.
<https://www.ncbi.nlm.nih.gov/pubmed/27703770>

*Shen H, Magnusson C, Rai D, Lundberg M, Le-Scherban F, Dalman C, †**Lee BK**. Associations of parental depression with child school performance at age 16 in Sweden (*with editorial*). *JAMA Psychiatry*. 2016;73(3):239-246. <https://www.ncbi.nlm.nih.gov/pubmed/26842307>

Gidaya NB, **Lee BK**, Burstyn I, Michael YL, Newschaffer CJ, Mortensen E. In utero exposure to B-2-adrenergic receptor agonist drugs and risk for autism spectrum disorders (*with editorial*). *Pediatrics*, 2016 Jan 6. pii: peds.2015-1316. <https://www.ncbi.nlm.nih.gov/pubmed/26738885>

Ladd-Acosta C, Shu C, **Lee BK**, Gidaya NB, Singer A, Schieve LA, Schendel D, Jones N, Daniels JL, Windham G, Newschaffer CJ, Croen LA, Feinberg AP, Fallin MD. Presence of an epigenetic signature of prenatal tobacco smoke exposure in childhood. *Environmental Research*, 2016 January;144(Pt A):139-148. <https://www.ncbi.nlm.nih.gov/pubmed/26610292>

2015

*Mayne S, **Lee BK**, Auchincloss AH. Evaluating Propensity Score Methods in a Quasi-experimental Study of the Impact of Menu-Labeling. *PLoS ONE*, 2015: 10(12).
<https://www.ncbi.nlm.nih.gov/pubmed/26677849>

Kosidou K, Dalman C, Widman L, Arver S, **Lee BK**, Magnusson C, Gardner RM. Maternal polycystic ovary syndrome and the risk of autism spectrum disorders in the offspring: a population-based nationwide study in Sweden. *Molecular Psychiatry*, 2015: 1-8.
<https://www.ncbi.nlm.nih.gov/pubmed/26643539>

*DeVilbiss EA, Gardner RM, Newschaffer CJ, **Lee BK**. Maternal folate status as a risk factor for autism spectrum disorders: a review of existing evidence. *British Journal of Nutrition* 2015: 1-10.
<https://www.ncbi.nlm.nih.gov/pubmed/26243379>

Gardner RM, **Lee BK**, Magnusson C, Rai D, Dal H, Karlsson H, Idring S, Dalman C. Maternal body mass index in early pregnancy, gestational weight gain, and risk of autism spectrum disorders: a population-based cohort study. *International Journal of Epidemiology*, 2015 Jun;44(3):870-83. <https://www.ncbi.nlm.nih.gov/pubmed/26045508>

Palumbo AJ, Michael YL, Burstyn I, **Lee BK**, R Wallace. Occupational Physical Demand and Risk of Hip Fracture in Older Women. *Occupational and Environmental Medicine*, 2015 Aug;72(8):567-72. <https://www.ncbi.nlm.nih.gov/pubmed/25995296>

*Rosen B, **Lee BK**, Lee NL, Yang Y, Burstyn I. Maternal smoking and autism spectrum disorder: a meta-analysis. *Journal of Autism and Developmental Disorders*, 2015 Jun;45(6):1689-98.
<https://www.ncbi.nlm.nih.gov/pubmed/25432101>

Idring S, Lundberg M, Sturm H, Dalman C, Gumpert C, Rai D, **Lee BK**, Magnusson C. Changes in prevalence of autism spectrum disorders in 2001-2011: findings from the Stockholm

Youth Cohort. *Journal of Autism and Developmental Disorders*, 2015 Jun;45(6):1766-73.
<https://www.ncbi.nlm.nih.gov/pubmed/25475364>

†**Lee, BK** McGrath JJ. Advancing parental age and autism: multifactorial pathways. *Trends in Molecular Medicine* 2015 Feb;21(2):118-25.
<https://www.ncbi.nlm.nih.gov/pubmed/25662027>

†**Lee BK**, Magnusson C, Gardner RM, Blomström A, Newschaffer CJ, Burstyn I, Karlsson H, Dalman C. Maternal hospitalization with infection during pregnancy and risk of autism spectrum disorders. *Brain, Behavior, and Immunity*, 2015 Feb;44: 100-5.

<https://www.ncbi.nlm.nih.gov/pubmed/25218900>

Selected as one of the 10 most influential autism papers of 2014 by the Simons Foundation Autism Research Initiative

*Goldstein ND, Tager-Flusberg H, †**Lee BK**. Mapping collaboration networks in the world of autism research. *Autism Research*, 2015 Feb;8(1):1-8.

<https://www.ncbi.nlm.nih.gov/pubmed/24850670>

*Rosso AL, **Lee BK**, Stefanick ML, Kroenke CH, Coker LH, Woods NF, Michael YL. Caregiving frequency and physical function: the Women's Health Initiative. *Journal of Gerontology, Medical Sciences*, 2015 Feb;70(2):210-5. <https://www.ncbi.nlm.nih.gov/pubmed/25060315>

2014

*Park BY, **Lee BK**. Use of meconium in perinatal epidemiology: potential benefits and pitfalls. *Annals of Epidemiology*, 2014 Dec, 24(12): 878–881.

<https://www.ncbi.nlm.nih.gov/pubmed/25444889>

*DeVilbiss EA, †**Lee BK**. Trends in U.S. National Autism Awareness from 2004-2014: the Impact of National Autism Awareness Month. *Journal of Autism and Developmental Disorders*, 2014 Dec;44(12):3271-3. <https://www.ncbi.nlm.nih.gov/pubmed/24915931>

Blomström A, Karlsson H, Svensson A, Frisell T, **Lee BK**, Dal H, Magnusson C, Dalman C. Hospital admission with infection during childhood and risk for psychotic illness – a population based cohort study. *Schizophrenia Bulletin*, 2014 Nov;40(6):1518-25.

<https://www.ncbi.nlm.nih.gov/pubmed/24366719>

Gidaya NB, **Lee BK**, Burstyn I, Yudell M, Mortensen EL, Newschaffer CJ. In utero exposure to selective serotonin reuptake inhibitors and risk for autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 2014 Oct;44(10):2558-67.

<https://www.ncbi.nlm.nih.gov/pubmed/24803368>

de Vocht F, **Lee B**. Residential proximity to electromagnetic field sources and birth weight: minimizing residual confounding using multiple imputation and propensity score matching.

Environment International, 2014 Aug;69:51-7. <https://www.ncbi.nlm.nih.gov/pubmed/24815339>

*Pan S, Stutzbach J, Reichwein S, **Lee BK**, Dahodwala N. Knowledge, attitudes, and beliefs about Parkinson's Disease among a diverse group of older adults. *Journal of Cross Cultural Gerontology*, 2014 Sep;29(3):339-52. <https://www.ncbi.nlm.nih.gov/pubmed/24752756>

*Fan J, **Lee BK** (co-first author), Wikman AT, Johansson S, Reilly M. Associations of rhesus and non-rhesus maternal red blood cell alloimmunization with stillbirth and preterm birth. *International Journal of Epidemiology*, 2014 Aug;43(4):1123-31. <https://www.ncbi.nlm.nih.gov/pubmed/24801308>

*Goldstein ND, Auchincloss AH, †**Lee BK**. A no cost geocoding strategy using R. *Epidemiology*, 2014 Mar;25(2):311-3. <https://www.ncbi.nlm.nih.gov/pubmed/24487219>

*Idring S, Magnusson C, Lundberg M, Rai D, Svensson AC, Dalman C, Karlsson H, **Lee BK**. Parental age and the risk of autism spectrum disorders – findings from a Swedish population-based cohort. *International Journal of Epidemiology*, 2014 Feb;43(1):107-15. <https://www.ncbi.nlm.nih.gov/pubmed/24408971>

2013

*Ng THH, Mossey JM, †**Lee BK**. Total blood mercury levels and depression among adults in the United States: National Health and Nutrition Examination Survey 2005-2008. *PLoS ONE* 2013 Nov 11;8(11):e79339. <https://www.ncbi.nlm.nih.gov/pubmed/24244482>

Kosidou K, Dalman C, Fredlund P, **Lee BK**, Galanti R, Isacson G, Magnusson C. School performance and the risk of suicide attempts in young adults: longitudinal population-based study. *Psychological Medicine*, 2014 Apr;44(6):1235-43. <https://www.ncbi.nlm.nih.gov/pubmed/23883735>

Rai D, **Lee BK**, Dalman C, Golding J, Lewis G, Magnusson C. Parental depression, maternal antidepressant use during pregnancy, and risk of autism spectrum disorders: population based case-control study. *British Medical Journal*, 2013 Apr 19;346:f2059. <https://www.ncbi.nlm.nih.gov/pubmed/23604083>

Stuart EA, **Lee BK**, Leacy FP. Prognostic-score based balance measures for propensity score methods in comparative effectiveness research. *Journal of Clinical Epidemiology*, 2013 Aug;66(8 Suppl):S84-S90. <https://www.ncbi.nlm.nih.gov/pubmed/23849158>

*Nguyen CT, Gracely EJ, †**Lee BK**. Serum Folate but Not Vitamin B-12 Concentrations Are Positively Associated with Cognitive Test Scores in Children Aged 6-16 Years. *The Journal of Nutrition*. 2013 Apr;143(4):500-4. <https://www.ncbi.nlm.nih.gov/pubmed/23390191>

Gardner RM, Dalman C, Wicks S, **Lee BK**, Karlsson H. Neonatal levels of acute phase proteins and later risk of non-affective psychosis. *Translational Psychiatry*. 2013;3:e228. <https://www.ncbi.nlm.nih.gov/pubmed/23423137>

2012

Burstyn I, **Lee B**, Gidaya NB, Yudell M. Presentation of study results: the authors' responsibility. *Environmental Health Perspectives*, 2012 Sep;120:A343-344; author reply A344-345. <https://www.ncbi.nlm.nih.gov/pubmed/23487836>

Ildring S, Rai D, Dal H, Dalman C, Sturm H, Zander E, **Lee BK**, Serlachius E, Magnusson C. Autism spectrum disorders in the Stockholm Youth Cohort: design, prevalence, and validity. *PLoS ONE*, 2012;7(7):e41280. <https://www.ncbi.nlm.nih.gov/pubmed/22911770>

Lee BK, Z Zhang, A Wikman, P Lindqvist, M Reilly. ABO and RhD blood groups and gestational hypertensive disorders: a population-based cohort study. *British Journal of Obstetrics and Gynecology*, 2012 Sep;119(10):1232-7. <https://www.ncbi.nlm.nih.gov/pubmed/22734590>

*Kabadi SM, **Lee BK**, Liu L. Joint Effects of Obesity and Vitamin D Insufficiency on Insulin Resistance and Type 2 Diabetes: Results from the NHANES 2001-2006. *Diabetes Care*, 2012 Oct;35(10):2048-54. <https://www.ncbi.nlm.nih.gov/pubmed/22751957>

†**Lee BK**, Gardner RM, Dal H, Svensson A, Galanti MR, Rai D, Dalman C, Magnusson C. Brief report: maternal smoking during pregnancy and offspring autism spectrum disorders. *Journal of Autism and Developmental Disorders*, 2012. 49(9): 2000-2005. <https://www.ncbi.nlm.nih.gov/pubmed/22173844>

2011

Lee BK, Ploner A, Zhang Z, Gryfelt G, Wikman A, Reilly M. Constructing a population-based research database from routine maternal screening records: a resource for studying alloimmunization in pregnant women. *PLoS ONE*, 2011;6(11):e27619. <https://www.ncbi.nlm.nih.gov/pubmed/22140452>

†**Lee BK**, Lessler J, Stuart EA. Weight trimming and propensity score weighting. *PLoS ONE* 2011 Mar 31;6(3):e18174. <https://www.ncbi.nlm.nih.gov/pubmed/21483818>

†**Lee BK**, Glass TA, James BD, Bandeen-Roche K, Schwartz BS. Neighborhood psychosocial environment, apolipoprotein E genotype, and cognitive function in older adults. *Archives of General Psychiatry*, 2011 Mar;68(3):314-21. <https://www.ncbi.nlm.nih.gov/pubmed/21383266>

2010 and earlier

†**Lee BK**. Epidemiologic Research and Web 2.0-the User-driven Web. *Epidemiology*, 2010. Nov;21(6):760-763. <https://www.ncbi.nlm.nih.gov/pubmed/20924229>

†**Lee BK**, Lessler J, Stuart EA. Improving propensity score weighting using machine learning. *Statistics in Medicine*, 2010 Feb 10;29(3):337-46. <https://www.ncbi.nlm.nih.gov/pubmed/19960510>

Lee BK, Glass TA, Wand GS, McAtee MJ, Bandeen-Roche K, Bolla KI, Schwartz BS. Apolipoprotein E genotype, cortisol, and cognitive function in community-dwelling older adults

(with editorial). *American Journal of Psychiatry*, 2008 Nov;165(11):1456-64.
<https://www.ncbi.nlm.nih.gov/pubmed/18593777>

Lee LC, Newschaffer CJ, Lessler JT, **Lee BK**, Shah R, Zimmerman AW. Variation in season of birth in singleton and multiple births concordant for autism spectrum disorders. *Paediatric and Perinatal Epidemiology* 2008; 22: 172-179. <https://www.ncbi.nlm.nih.gov/pubmed/18298692>

Lee BK, Glass TA, McAtee MJ, Wand GS, Bandeen-Roche K, Bolla KI, Schwartz BS. Associations of salivary cortisol with cognitive function in the Baltimore Memory Study. *Archives of General Psychiatry*, 2007 Jul;64(7):810-8. <https://www.ncbi.nlm.nih.gov/pubmed/17606815>

Zhang G, Wang X, Kong L, Lu X, **Lee B**, Meng L, Sun M, Franklin C, Cook RG, Geller AI. Genetic enhancement of visual learning by activation of protein kinase C pathways in small groups of rat cortical neurons. *Journal of Neuroscience*, 2005 Sep 14;25(37):8468-81. <https://www.ncbi.nlm.nih.gov/pubmed/16162929>

Book Chapters

Lee BK. Disease Eradication. in *Encyclopedia of Epidemiology*, ed. Sarah Boslaugh. Sage Publications, 2008, Thousand Oaks, CA.

Lee BK. Herd Immunity. in *Encyclopedia of Epidemiology*, ed. Sarah Boslaugh. Sage Publications, 2008, Thousand Oaks, CA.

CURRICULUM VITAE

Brian K. Lee

Part II

TEACHING

Classroom Instruction

Drexel University School of Public Health

Primary Instructor

2017	Data Science Using R
2016	Proposal Writing Seminar
2011-2017	Advanced Epidemiology 2: Methodologic Challenges
2013	Introduction to Epidemiology, Executive Program Philadelphia
2013	Exposure Measurement Error in Epidemiology: Simulation Studies
2012	Machine Learning in Epidemiology
2011	Special Topics in Pharmacoepidemiology

Co-Instructor

2013	Introduction to Epidemiology, Executive Program Sacramento
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Guest Lectures

2017	Causal Inference in Epidemiology
2014-17	Occupational and Environmental Epidemiology
2010	Epidemiology PhD seminar

Karolinska Institute, Department of Medical Epidemiology and Biostatistics

Primary Instructor

2012	Applied Causal Inference
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Instituto Nacional de Salud Pública, Mexico City

Primary Instructor

2017	Advanced Epidemiology
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University of Bristol, Bristol, UK

Primary Instructor

2018	Practical Aspects of Propensity Score Matching
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Johns Hopkins Bloomberg School of Public Health

Teaching Assistantships

2009	Causal Inference in Medicine and Public Health
2005, '06, '08	Observational Epidemiology (classroom and Internet)
2007	Social Epidemiology (Summer Institute)
2007	Epidemiologic Methods

2006	Epidemiology of Infectious Diseases
2006	Design and Applications of Case-Control Studies
2005	Principles of Epidemiology

ADVISING

PhD students

Sherlly Xie, Epidemiology (enrolled 2014). "Family Neurologic and Psychiatric History and the Risk of Autism Spectrum Disorder."

Elizabeth DeVilbiss, Epidemiology (defended 2017). "Quantifying relationships between maternal folate status and Autism Spectrum Disorders: examination of two European birth cohorts."

Andrew Klink, PhD, Epidemiology (defended 2014). "The role of biologics in the treatment of ulcerative colitis."

MPH/MS students

2017

Maxwell Boamah, Epidemiology

Mavis Choi, Epidemiology

Raven Jones, Epidemiology

Yuling Tan, Epidemiology

2016

Shivanshu Awasthi, Epidemiology

Kara Fisher, Epidemiology

2015

Shruti Desai, Epidemiology

Jennifer Macfarlan, Epidemiology

Hanyang Shen, Epidemiology

Shiny Thomas, Epidemiology

Emily Valencia, Epidemiology

Ludi Jin, Biostatistics

2014

Kalani Dodampahala, Epidemiology

Genna Drauschak, Epidemiology

Baljot Kaur, Epidemiology

Michelle Klawans, Epidemiology

Amit Mukherji, Epidemiology

Brittany Rosen, Environmental and Occupational Health

2013

Jessica Davies, Epidemiology
Sonali Shambhu, Epidemiology

2012

Elizabeth DeVilbiss, Epidemiology
Rikita Hatia, Epidemiology
Kevin Houck, Epidemiology
Janay Jeter, Epidemiology
Tsz Hin Ng, Epidemiology
Cathy Nguyen, Epidemiology
Tao Yang, Biostatistics

2011

Melissa Geary, Epidemiology
Sarah Pan, Epidemiology

THESIS OPPONENT

Stefan Nygaard Hansen (Biostatistics PhD 2017, Aarhus University, Aarhus, Denmark). Time-to-event analysis under time trends or dependent censoring.

THESIS COMMITTEES

Nicole Gidaya (Epidemiology PhD 2013), "The Effect of In Utero Exposure to B2AR Agonists and SSRIs on the Risk for Autism Spectrum Disorders."

Bo Young Park (Epidemiology PhD 2015), "Prenatal testosterone and early autism spectrum disorder related neurodevelopmental outcomes."

Anna Wallace (Epidemiology PhD 2017), "Assisted conception and risk of autism in a large commercially insured population."

Xi Wang (Epidemiology PhD 2018), "Maternal pre-pregnancy body mass index, gestational weight gain, and risk of autism spectrum disorders in offspring."

ORAL EXAM PARTICIPATION

Alan Sim (Epidemiology PhD 2015), "HIV/AIDS Antiretroviral Therapy and Increased Risk for CVD in a National Cohort."

Yichen Zhong, (Epidemiology PhD candidate), "The Impact of Beverage Tax and Price Promotion on Sugar-Sweetened Beverage Consumption and Purchases."

Leny Mathew, (Epidemiology PhD candidate), "Phthalate metabolites and neurodevelopmental disorders."

RESEARCH GRANT PARTICIPATION

NIEHS 1R21ES023760-01A1, 8/2014 - 7/2016 (no cost extension until 7/2017)
"Early life vitamin D levels and risk of autism spectrum disorders"

Role: PI (co-PI: Dalman), Total amount: \$352,048

Swedish Research Council 2012-3206, 1/2013 - 12/2016

"Risk Profiling of Pregnant Women for Targeted Screening for Alloimmunization."

Role: Co-I (PI: Reilly), Total amount: SEK 3,200,000

Swedish Research Council 2012-2264, 1/1/2013 - 12/31/2016

"The role of early life inflammation in the etiology of autism spectrum disorders: a longitudinal study based on a combination of register and bio-sample data"

Role: Co-I (PI: Dalman), Total amount: SEK 3,800,000

Swedish Research Council 2012-3017, 1/2013 - 12/2015

"Use of Selective Serotonin Reuptake Inhibitors in Pregnancy and Offspring Neurodevelopment"

Role: Co-I (PI: Magnusson), Total amount: SEK 2,400,000

Autism Speaks Basic and Clinical Grant #7618, 2/2012 - 1/2015

"Early life environmental exposures and autism in an existing Swedish birth cohort"

Role: PI, Total amount: \$448,423

American Federation for Aging Research, 7/2010 - 12/2012

" Effects of midlife blood pressure, anti-hypertensive medication use, and genetic risk factors on white matter health in aging"

Role: PI, Total amount: \$75,000

HHS-N-271-2010-00033-C, 9/2010 - 9/2012

"Study of Health Outcomes in Children with Autism and Their Families."

Role: Co-I, Total amount: \$4,197,414

NIEHS R01, 10/2009-9/2011

"Genome-wide Environmental Interaction Study for Autism: The SEED Study."

Role: Co-I, Total amount: \$1,428,909

Drexel University Faculty Development Grant

9/2010 - 8/2011

"Blood markers during fetal and perinatal life and childhood and the risk of autism- a pilot study based on biomaterial and registers."

Role: PI, Total amount: \$5,000

Dissertation award, 9/2006 - 6/2009

Johns Hopkins Bloomberg School of Public Health, Department of Epidemiology

"Neighborhood psychosocial hazards, the hypothalamic-pituitary-adrenal axis, and gene-environment interaction toward the cognitive function of older adults."

Role: PI

ACADEMIC SERVICE

Drexel University School of Public Health

2016	University diversity liaison
2016	Dornsife Professor search committee
2016	Epi/Bio faculty search committee
2016-	Chair, MPH Electives/Tracks subcommittee
2016-	Appointment, Promotions, and Tenure Committee
2016	Mentor, faculty NIH grant writing bootcamp
2016	Seminar presenter, doctoral students career workshop
2015	Epi/Bio faculty search committee
2015	Fulbright Scholar Program campus selection committee
2015	A.J. Drexel Autism Institute faculty search committee
2014-2015	Faculty Senate Research and Scholarly Activity Committee
2014-	Chair, Research and Finance subcommittee, Faculty Senate Research and Scholarly Activity Committee
2014-2015	Ep/Bio Chair search committee
2014-	Epi/Bio MS/PhD admissions committee
2014	A.J. Drexel Autism Institute Exposure Science faculty search
2013-	MPH admissions committee
2012	SPH committee for research culture and infrastructure SPH executive committee of the faculty subcommittee on space
2011	Epi/Bio IT committee
2010	Judge, Drexel Research Day
2009	Epi/Bio webpage redesign committee
2009	Epi/Bio committee to revise curriculum for epidemiology students

Johns Hopkins Bloomberg School of Public Health

2007-08	Admissions and Credentials Committee, Department of Epidemiology, Johns Hopkins Bloomberg School of Public Health
2005-06	Epidemiology Student Organization officer

Harvard University

2004-Present	Board of Advisors; Harvard Center for Public Interest Careers
2004-Present	Harvard Admissions Committee

CONFERENCE ORGANIZATION

Chair, symposium, "Autism and intellectual disability: patterns of familial and environmental risk." 2017 International Meeting for Autism Research, San Francisco.

Chair, symposium, "Mental health and physiological processes." 2015 International Federation for Psychiatric Epidemiology, Bergen.

Chair (with Connor Kerns), symposium, "Co-Occurring Psychiatric Disorders and the Lifecourse in ASD: Clinical and Epidemiological Perspectives." 2015 International Meeting for Autism Research, Salt Lake City.

Organizer (with Whitney Robinson), Pre-Conference Workshop. "Propensity score modeling." 2013 Society for Pediatric and Perinatal Epidemiologic Research, Boston.

Organizer (with Justin Lessler), Pre-Conference Workshop. "An Introduction to R for Epidemiologists using RStudio." 2013 Society for Epidemiologic Research meeting, Boston.

Chair, Educational Symposium. "Methodologic challenges in risk factor epidemiology: advancing the state of research." 2012 International Meeting for Autism Research, Toronto.

Chair (with Justin Lessler), Spotlight Session, "The role of predictive models in causal inference." 2011 North American Congress of Epidemiology, Montreal.

PRESENTATIONS

Invited talks at scientific meetings

Lee BK. Prenatal nutrition and risk of child ASD: findings and updates from the Stockholm Youth Cohort. *International Society for Autism Research – Rotterdam 2018.*

Lee BK. Machine learning methods for confounder adjustment: an application with propensity scores. *International Biometrics Society – China, Shanghai 2016.*

Lee BK, Newschaffer CJ. Clever analysis of nonheritable risk factors: maternal use of antidepressants during pregnancy and risk of ASD. *International Meeting for Autism Research, Baltimore 2016.*

*DeVilbiss EA, Magnusson C, Gardner RM, Rai D, Newschaffer CJ, Lyall K, Dalman C, **Lee BK.** Prenatal nutritional supplementation and ASD: causal inference analyses. *International Meeting for Autism Research, Baltimore 2016.*

Gardner RM, **Lee BK,** Karlsson H, Dalman C. Neonatal inflammation and autism risk in a Swedish birth cohort. *International Meeting for Autism Research, Baltimore 2016.*

Lee BK, Gardner RM, Karlsson H, Dalman C. Associations of neonatal markers of inflammation and risk of autism. *15th Congress of the International Federation for Psychiatric Epidemiology, Bergen 2015.*

*DeVilbiss EA, **Lee BK,** Magnusson C. Maternal use of prenatal nutritional supplements and risk of autism in the Stockholm Youth Cohort. *European Congress of Psychiatry, Vienna 2015.*

Gardner RM, Dalman C, Wicks S, **Lee BK**, Karlsson H. Monitoring markers of inflammation from before birth to after diagnosis: a longitudinal study of non-affective psychosis cases and matched controls. *Schizophrenia International Research Society Conference, Florence 2014.*

AJ Palumbo, YL Michael, I Burstyn, **BK Lee**, R Wallace. Pre-menopausal Occupational Physical Demand Protects Against Hip Fractures. *Society for Epidemiologic Research, Boston 2013.*

Rai D, **Lee BK**, Dalman C, Golding J, Lewis G, Magnusson C. Parental depression, maternal antidepressant use during pregnancy, and the risk of autism spectrum disorders: population-based study. *International Meeting for Autism Research, San Sebastian, Spain, 2013.*

*Fan J, **Lee BK**, Wikman AT, Johansson S, Reilly M. Maternal non-Rhesus-D red blood cell alloimmunization and risk of adverse pregnancy outcomes: a population-based study of over one million pregnancies in Sweden. *AABB Annual Meeting, Boston 2012.*

Ladd-Acosta C, **Lee BK**, Bonner J, Sheppard B, Gidaya N, Reynolds A, Croen L, Schendel D, Newschaffer C, Fallin D. Genome-wide SNP and environment interaction study in autism. *International Meeting for Autism Research, Toronto 2012.*

Lee BK, Jagatiya D, Schwartz BS. Blood pressure, APOE genotype, and white matter health. *The Gerontological Society of America's 64th Annual Meeting, Boston 2011.*

Stuart EA, **Lee BK**. Does better balance translate into less bias? Examining balance measures and their association with bias in treatment effect estimates. *Joint Statistical Meetings, Miami Beach 2011.*

Lee BK. Infodemiology for epidemiologists. *Society for Epidemiologic Research, Seattle 2010.*

Lee BK, Lessler JT, Stuart EA. Using weight trimming to improve propensity score weighting. *Society for Epidemiologic Research, Anaheim 2009.*

Lee BK, Glass TA, James BD, Schwartz BS. Neighborhood psychosocial hazards, APOE genotype, and cognitive function in older adults. *Society for Epidemiologic Research, Chicago 2008.*

James BD, Glass TA, **Lee BK**, Schwartz BS. Social engagement and cognitive function: the Baltimore Memory Study. *Society for Epidemiologic Research, Chicago 2008.*

Lee BK, Glass TA, McAtee MJ, James BD, Schwartz BS. Perceptions of neighborhoods and salivary cortisol levels in the Baltimore Memory Study. *International Conference on Urban Health, Baltimore 2007.*

James BD, Glass TA, **Lee BK**, Schwartz BS. Does the association between social engagement and cognitive function vary by race? *Gerontological Society of America, San Francisco 2007.*

Lee BK, McAtee MJ, Glass TA, Schwartz BS. Apolipoprotein E haplotype, cortisol metrics, and cognitive function in community-dwelling older adults. *Gerontological Society of America, Dallas*

2006.

Lee BK, McAtee MJ, Glass TA, Schwartz BS. Cortisol metrics and cognitive function in a population-based study of older adults. *North American Congress of Epidemiology, Seattle 2006*.

Posters at Scientific Meetings

*Xie L, Magnusson C, Rai D, Dalman C, **Lee BK**. Gestational age and the risk of autism spectrum disorders: findings from the Stockholm Youth Cohort. *International Meeting for Autism Research, Baltimore 2016*.

*DeVilbiss EA, Magnusson C, **Lee BK**. Maternal use of prenatal nutritional supplements and risk of autism in the Stockholm Youth Cohort. *International Meeting for Autism Research, Salt Lake City 2015*.

AJ Palumbo, YL Michael, I Burstyn, **BK Lee**, R Wallace. Lifetime exposure to occupational physical demand and hip fractures in post-menopausal women. *International Epidemiological Association, Anchorage 2014*.

BS Ku, DB Mautner, KC Scott, KR McCarter, L Selame, JC Brenner, **BK Lee**. Super-utilizers of the emergency department: could childhood trauma be a culprit? *American College of Emergency Physicians, Chicago 2014*.

*S Idring, C Magnusson, M Lundberg, D Rai, A Svensson, C Dalman, H Karlsson, M Ek, **BK Lee**. Parental age and the risk of autism spectrum disorders – findings from a Swedish population-based cohort. *International Meeting for Autism Research, Atlanta 2014*.

S Andrews, L Croen, L Schieve, KD Hansen, **BK Lee**, AP Feinberg, C Ladd-Acosta, D Fallin. Blood-brain DNA methylation concordance in autism spectrum disorders. *International Meeting for Autism Research, Atlanta 2014*.

AJ Palumbo, YL Michael, I Burstyn, **BK Lee**, R Wallace. Lifetime Exposure to Occupational Physical Demand and Hip Fractures in Post-menopausal Women. *IEA World Congress of Epidemiology, Anchorage 2014*.

*B Park, **BK Lee**. Use of Meconium in Perinatal Epidemiology: Potential Benefits and Pitfalls. *Society for Epidemiologic Research, Seattle 2014*.

*MR Klawans, **BK Lee**. Measles, Mumps, Rubella, and Varicella Immunity amongst Women of Reproductive Age, 2009-2010. *Society for Epidemiologic Research, Seattle 2014*.

*Ng THH, JM Mossey, **BK Lee**. Total blood mercury levels and depression in the United States: National Health and Nutrition Examination Survey 2005-2008. *Society for Epidemiologic Research, Boston 2013*.

C Ladd-Acosta, **BK Lee**, J Bonner, B Sheppard, N Gidaya, L Weiss, J Quinn, G Windham, A Reynolds, L Schieve, L Croen, D Schendel, CJ Newschaffer, MD Fallin. Identification of Gene-Environment Interactions Associated with Autism. *International Meeting for Autism Research, San Sebastian, Spain, 2013.*

C Ladd-Acosta, A Runarsson, **BK Lee**, J Bonner, G Windham, L Croen, L Schieve, D Schendel, AP Feinberg, MD Fallin. An integrative epigenome-wide autism association study. *International Meeting for Autism Research, San Sebastian, Spain, 2013.*

*B Park, **BK Lee**. Evaluation of prenatal exposure and meconium collection methods using simulated cotinine and birth weight data. *National Maternal and Child Health Epidemiology conference 2012, San Antonio.*

C Ladd-Acosta, **BK Lee**, J Bonner, B Sheppard, N Gidaya, L Weiss, J Quinn, G Windham, A Reynolds, L Croen, D Schendel, C Newschaffer, MD Fallin. Application of genome-wide gene-environment interaction methods: the SEED autism study. *International Genetic Epidemiology Society 2012, Stevenson, Washington.*

B Sheppard, C Ladd-Acosta, **BK Lee**, J Bonner, G Windham, L Schieve, L Croen, A Reynolds, D Schendel, C Newschaffer, MD Fallin. Copy number variation in autism spectrum disorders. *American Society of Human Genetics 2012, San Francisco.*

*G Stringer, **BK Lee**. Recent Injury and Alcohol Use Behavior Among Adolescent Athletes: Analysis of 2007 Youth Risk Behavior Survey Data. *Society for Epidemiologic Research 2012, Minneapolis.*

*NB Gidaya, **BK Lee**, I Burstyn, K Heavner, YL Michael, M Yudell, EL Mortensen, CJ Newschaffer. In Utero Exposure to Selective Serotonin Reuptake Inhibitors (SSRIs) and Risk for Autism Spectrum Disorders. *Society for Epidemiologic Research 2012, Minneapolis.*

Lee BK, Dalman C, Newschaffer CJ, Burstyn I, Blomstrom A, Idring S, Karlsson H, Gardner R, Magnusson C. Maternal hospitalization for infection during pregnancy and risk of autism spectrum disorders. *International Meeting for Autism Research 2012, Toronto.*

*Gidaya NB, **Lee BK**, Burstyn I, Mortensen EL, Newschaffer CJ. In utero exposure to B2AR agonists and risk for autism spectrum disorders. *International Meeting for Autism Research 2012, Toronto.*

Idring S, Rai D, Dal H, Dalman C, Sturm H, Zander E, **Lee BK**, Serlachius E, Magnusson C. Prevalence and case validity of autism spectrum disorders in the Stockholm Youth Cohort. *International Meeting for Autism Research 2012, Toronto.*

Lee BK, Jagatiya D, Schwartz BS. Blood pressure, APOE genotype and white matter health. *American Federation of Aging Research grantee conference, Santa Barbara 2011.*

Lee BK, Schwartz BS. A diffusion tensor imaging study of cumulative lead dose and white matter health in former organolead workers. *North American Congress of Epidemiology, Montreal 2011*.

Lee BK. Propensity score weighting and doubly robust adjustment in sparse data situations. *Society for Epidemiologic Research, Seattle 2010*.

Lee BK, Stuart EA. The relationship between propensity score balance measures and bias in the treatment effect estimate. *Society for Epidemiologic Research, Seattle 2010*.

Lau B, **Lee BK**, Moore RD, Stuart EA, Cole SR. Estimating the expectation of exposure conditional on confounders using a bootstrap model averaging algorithm. *International Workshop on HIV Observational Databases, Barcelona 2010*.

Lee BK, Lee LC, Chang JJ, Newschaffer CJ. Increased risk of injury and accident in children with autism. *International Meeting for Autism Research, Montreal 2006*.

Zimmerman AW, Lee LC, **Lee BK**, Shah R, Newschaffer CJ. Birth date distribution and autism spectrum disorders. *International Meeting for Autism Research, Boston 2005*.

Zhang G, Kong L, Wang X, **Lee B**, Meng L, Sun M, Franklin C, Cook RG, Geller AI. Circuits in rat postrhinal cortex are activated during enhanced visual object learning. *Society for Neuroscience, Washington DC 2002*.

Invited Colloquia

“Vitamin D and autism.” Queensland Brain Institute, University of Queensland, March 2018.

“Vitamin D, seasonality, and autism.” Drexel University, Department of Epidemiology and Biostatistics, October 2017.

“Propensity scores: snake oil or panacea?” University of Bristol, December 2015.

“Inflammatory markers in neonatal blood spots and risk of autism.” Karolinska Institute, Dept. of Medical Epidemiology and Biostatistics, March 2015.

“Parental obesity and risk of autism in the child: causal or confounded?” UNC Chapel Hill Gillings School of Public Health, February 2015 *Postponed*.

“Maternal antidepressant use during pregnancy and risk of autism: a review of the evidence” Chinese University of Hong Kong, The Jockey School of Public Health and Primary Care, November 2014.

“Handling exposure and confounder misclassification using simulation.” Karolinska Institute, Dept. of Public Health Sciences, September 2014.

“Splines in risk factor epidemiology: examples from a Swedish birth cohort study of autism.” Drexel University Department of Environmental and Occupational Health, Philadelphia, PA, November 2013.

“Joint effects of the hypothalamic-pituitary-adrenal axis and APOE genotype in the cognition of older adults.” National Institute on Aging, Baltimore, MD, February 2009.

“Neighborhood psychosocial hazards, APOE genotype, and cognitive function in older adults: results from the Baltimore Memory Study.” Drexel University School of Public Health, Department of Epidemiology and Biostatistics, Philadelphia, PA, March 2009.

“Data mining in the analysis of epidemiological data: an application in propensity score weighting.” Karolinska Institutet Department of Medical Epidemiology and Biostatistics, Stockholm, Sweden, March 2009.

ADDITIONAL INFORMATION

Personal statement of research and research objectives

My etiological research focuses on environmental influences shaping neurologic development, especially with regard to autism spectrum disorders, using population-based registers and databases and historical biobanks. A separate theme of my research focuses on the methodological toolbox necessary for causal inference in epidemiology. Specific interests include biomarker characterization in epidemiologic studies, machine learning and data mining, and optimization of propensity score techniques.

Keywords

Autism spectrum disorders, biomarkers, causal inference, cognitive function, data mining, inflammation, machine learning, neuroepidemiology, pharmacoepidemiology, psychiatry, propensity score, simulations