

## CURRICULUM VITAE

Brian K. Lee

### PERSONAL DATA

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### 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

- 2021- Honorary Senior Research Fellow  
University of Bristol, Bristol, United Kingdom
- 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 Global Public Health  
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- )

*Associate Editor:* Frontiers in Neuroscience (2021)

### *Peer Review: Journals*

Acta Psychiatrica Scandinavica, 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, BMJ Open, Canadian Studies in Population, Childhood Obesity, Communications Medicine, 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, Journal of Quantitative Criminology, Molecular Autism, 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
- Czech Science Foundation
- Alzheimer's Society of Ireland
- Genome Alberta
- NIH NCI SEP
- NIH NIEHS SEP
- UK Medical Research Council
- Department of Defense Autism Research Program
- Wellcome Trust
- Karolinska Institutet Strategic Research Area in Epidemiology and Biostatistics
- Research Council of Hong Kong

**HONORS AND AWARDS**

2023	Louis and Bessie Stein Family Fellowship for Exchanges with Israeli Universities
2023	One of the top 20 autism papers of the year as selected by the Office of Autism Research Coordination at the National Institute of Mental Health
2021	Spectrum News Rising Star
2014, 2016	Drexel International Travel Award
2014	One of the 10 most influential autism papers of the year as selected by the Simons Foundation Autism Research Initiative
2014	Top 2% of reviewers, <i>Journal of Autism and Developmental Disorders</i>
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 mentored student

† Indicates corresponding authorship

*Journal Articles – Published / In Press*

2023

96. Ahlqvist VH, Dardani C, Madley-Dowd P, Forbes H, Rast JE, Zhong C, Gardner RM, Dalman C, Lyall K, Newschaffer CJ, Tomson T, Berglind D, Davies NM, **Lee BK**, Magnusson C, Rai D. Psychiatric comorbidities in epilepsy: population co-occurrence, genetic correlations and causal effects. *General Psychiatry, in press.*

95. Chen S, Ahlqvist VH, Sjoqvist H, Stephansson O, Magnusson C, Dalman C, Karlsson H, **Lee BK**, Gardner RM. Maternal intrahepatic cholestasis of pregnancy and neurodevelopmental conditions in offspring: a population-based cohort study of two million Swedish children. *PLOS Medicine*. In press.

94. Rast JE, Tao S, Schott W, Shea LL, Brodtkin ES, Kerns CM, Leonard CE, Murray MJ, **Lee BK**. Psychotropic medication use in children and youth with autism enrolled in Medicaid. *Journal of Autism and Developmental Disorders*. 2023 Dec 18. <https://pubmed.ncbi.nlm.nih.gov/38113012/>

93. Song W, Salzer MS, Becker A, Vanness DJ, **Lee BK**, Cooper D, Ventimiglia J, Shea LL. Exploring the relationship between COVID-19 and autistic adults' community participation: findings from a two-timepoint longitudinal study. *Research in Autism Spectrum Disorders*. 109, Nov 2023, 102278.

92. Chen S, Wang X, **Lee BK**, Gardner RM. Associations between maternal metabolic conditions and neurodevelopmental conditions in offspring: the mediating effects of obstetric and neonatal complications. *BMC Medicine*. 2023 Nov 7;21(1):422. <https://pubmed.ncbi.nlm.nih.gov/37936224/>

91. Levine SZ, Rotstein A, Kodesh A, Sandin S, **Lee BK**, Weinstein G, Beeri MS, Reichenberg A. Adult attention-deficit/hyperactivity disorder and the risk of incident dementia in middle-aged and older adults: a national cohort study. *JAMA Network Open*. 2023 Oct 2;6(10):e2338088. <https://pubmed.ncbi.nlm.nih.gov/37847497/>

90. **Lee BK**, Schendel DE, Shea LL. Big data in autism research: methodological challenges and solutions. *Autism Research*. 2023 Oct;16(10):1852-1858. <https://pubmed.ncbi.nlm.nih.gov/37596816/>

89. Madley-Dowd P, Rast JE, Ahlqvist VH, Zhong C, Martin FZ, Davies NM, Lyall K, Newschaffer C, Tomson T, Magnusson C, Rai D, **Lee BK**, Forbes H. Trends and patterns of antiseizure medication prescribing during pregnancy between 1995 and 2018 in the United Kingdom: a cohort study. *British Journal of Obstetrics and Gynaecology*. 2023 Jun 20. <https://pubmed.ncbi.nlm.nih.gov/37340193/>

88. Chen S, Persson M, Wang R, Dalman C, **Lee BK**, Karlsson H, Gardner RM. Random capillary glucose levels throughout pregnancy, obstetric and neonatal outcomes, and long-term neurodevelopmental conditions in children: a group-based trajectory analysis. *BMC Medicine* 2023 Jul 19;21(1):260. <https://pubmed.ncbi.nlm.nih.gov/37468907/>

87. Chen S, Fan M, **Lee BK**, Dalman C, Karlsson H, Gardner RM. Rates of maternal weight gain over the course of pregnancy and offspring risk of neurodevelopmental disorders. *BMC Medicine*. 2023, 21(1): 1-16. <https://pubmed.ncbi.nlm.nih.gov/36959571/>

86. \*Ahlqvist VH, Madley-Dowd P, Ly A, Rast JE, Lundberg M, Jonsson-Bachmann E, Berglind D, Rai D, Magnusson C, **Lee BK**. Bias amplification of unobserved confounding in

pharmacoepidemiological studies using indication-based sampling. *Pharmacoepidemiology and Drug Safety*. In press. <https://pubmed.ncbi.nlm.nih.gov/36919941/>

85. **Lee BK**. The central role of the propensity score in epidemiology. *Observational Studies*. 2023;9(1):55-7.

## 2022

84. Shea LL, Verstrete K, Nonnemacher S, Treadway P, Alford A, Newschaffer CJ, **Lee BK**. The Periodic Risk Evaluation: A new tool to link Medicaid-enrolled autistic adults to services and support. *Research in Autism Spectrum Disorders*. 2022 Oct 1;98:102037.

83. Mathew L, Snyder NW, Lyall K, **Lee BK**, McClure LA, Elliott AJ, Newschaffer CJ. The associations between prenatal phthalate exposure measured in child meconium and cognitive functioning of 12-month-old children in two cohorts at elevated risk for adverse neurodevelopment. *Environmental Research*, 2022 Nov;214(Pt 2):113928. <https://pubmed.ncbi.nlm.nih.gov/35870502/>

82. Brynne M, Sjöqvist H, Gardner RM, **Lee BK**, Dalman C, Karlsson H. Maternal infection during pregnancy and risk of autism and intellectual disability: a negative control and sibling comparison. *Lancet Psychiatry*, 2022 Oct;9(10):782-791. <https://pubmed.ncbi.nlm.nih.gov/36087610/>

81. Ezeh TH, **Lee BK**, Rast JE\*. The Medical Home and Use of Mental and Non-mental Specialty Services Among Children with Autism Spectrum Disorder (ASD). *Journal of Autism and Developmental Disorders*, 2022 Jun 2. <https://pubmed.ncbi.nlm.nih.gov/35653008/>

80. \*Zhong C, Shah R, Rando J, Park B, Girardi T, Walker CK, Croen LA, Fallin MD, Hertz-Picciotto I, **Lee BK**, Schmidt RJ, Volk HE, Newschaffer CJ, Salafia CM, Lyall K. Placental morphology in association with autism-related traits in the EARLI study. *BMC Pregnancy and Childbirth*, 2022 Jun 28;22(1):525. <https://pubmed.ncbi.nlm.nih.gov/35764940/>

79. Martin Brynne, Renee M Gardner, Hugo Sjöqvist, **Brian K Lee**, Christina Dalman and Håkan Karlsson. Maternal Levels of Cytokines in Early Pregnancy and Risk of Autism Spectrum Disorders in Offspring. *Frontiers in Public Health*, 2022 May 31;10:917563. <https://pubmed.ncbi.nlm.nih.gov/35712277/>

78. Shea L, Becker A, **Lee BK**, Miller KK, Cooper D, Anderson K, Salzer MS, Vanness DV. COVID-19 vaccination status and preferences among autistic adults. *Vaccine*, 2022 May 26;40(24):3288-3293. <https://pubmed.ncbi.nlm.nih.gov/35484038/>

## 2021

77. Schendel D, Laursen TM, Albinana C, Vilhjalmsón B, Ladd-Acosta C, Fallin MD, **Lee B**, Grove J, Kalkbrenner A, Ejlskov L, Hougaard D, Bybjerg-Grauholm J, Baekvad-Hansen M, Borglum AD, Werge T, Nordentoft M, Mortensen PB, Agerbo E. Evaluating the interrelations between the autism polygenic score and psychiatric family history in risk for autism. *Autism Research*, 2022 Jan;15(1):171-182. <https://pubmed.ncbi.nlm.nih.gov/34664785/>

76. Mathew L, Snyder NW, Lyall K, **Lee BK**, McClure LA, Elliott AJ, Newschaffer CJ. Prenatal phthalate exposure measurement: A comparison of metabolites quantified in prenatal maternal urine and newborn's meconium. *Science of the Total Environment*, Nov 20, 2021; 796:148898. <https://pubmed.ncbi.nlm.nih.gov/34280640/>

75. Ejlskov L, Wulf JN, Kalkbrenner A, Ladd-Acosta C, Fallin MD, Agerbo E, Mortensen PB, **Lee BK**, Schendel D. Prediction of autism risk from family medical history data using machine learning: a national cohort study from Denmark. *Biological Psychiatry Global Open Science*, 2021. <https://doi.org/10.1016/j.bpsgos.2021.04.007>

74. Gardner RM, **Lee BK**, Brynge M, Sjoqvist H, Dalman C, Karlsson H. Neonatal levels of acute phase proteins and risk of autism spectrum disorders. *Biological Psychiatry*, 1 March 2021. 89(5), 463-475. <https://pubmed.ncbi.nlm.nih.gov/33187600/>

#### 2020

73. Terloyeva D, Frey AJ, Park BY, Kauffman EM, Mathew L, Bostwick A, Varner EL, **Lee BK**, Croen LA, Fallin MD, Hertz-Picciotto I, Newschaffer CJ, Lyall K, Snyder NW. Meconium androgens are correlated with ASD-related phenotypic traits in early childhood in a familial enriched risk cohort. *Molecular Autism*, 2020 Nov 23;11(1):93. <https://pubmed.ncbi.nlm.nih.gov/33228808/>

72. \*Xie S, Karlsson H, Dalman C, Widman L, Rai D, Gardner RM, Magnusson C, Sandin S, Tabb LP, Newschaffer CJ, **Lee BK**<sup>†</sup>. The familial risk of autism with and without intellectual disability. *Autism Research*, 2020 Oct 26. <https://pubmed.ncbi.nlm.nih.gov/33103358/>

71. \*Zhong C, Tessing J, **Lee BK**, Lyall K. Maternal Dietary Factors and The Risk of Autism Spectrum Disorders: A Systematic Review of Existing Evidence. *Autism Research*, 2020 Oct 5. <https://pubmed.ncbi.nlm.nih.gov/33015977/>

70. Zhong Y, Auchincloss AH, **Lee BK**, McKenna RM, Langellier BA. Sugar-Sweetened and Diet Beverage Consumption in Philadelphia One Year after the Beverage Tax. *International Journal of Environmental Research and Public Health*. 2020, 17(4), 1336. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7068482/>

69. \*Vader D, **Lee BK**, Evans AA. Hepatitis B Birth Dose Effects on Childhood Immunization in the U.S. *American Journal of Preventive Medicine*, 2020;58(2):208–215. <https://www.ncbi.nlm.nih.gov/pubmed/31959321>

#### 2019 (Jan-Mar parental leave)

68. **Lee BK**<sup>†</sup>, Eyles D, Magnusson C, Newschaffer CJ, McGrath J, Kvaskoff D, Ko P, Dalman C, Karlsson H, Gardner RM. Developmental vitamin D and autism spectrum disorders: findings from the Stockholm Youth Cohort. *Molecular Psychiatry*, 2019. <https://www.ncbi.nlm.nih.gov/pubmed/31695167>

67. Wang C, le Ray I, **Lee BK**, Wikman A, Reilly M. Association of blood group and red blood cell transfusion with the incidence of antepartum, peripartum and postpartum venous thromboembolism. *Scientific Reports*, 2019 9(1), 1-7.

<https://pubmed.ncbi.nlm.nih.gov/31537816/>

66. Wieggersma AM, Dalman C, **Lee BK**, Karlsson H, Gardner RM. Association of prenatal maternal anemia with neurodevelopmental disorders. *JAMA Psychiatry*, 2019 Sep 18:1-12.

<https://www.ncbi.nlm.nih.gov/pubmed/31532497>

65. Gardner RM, Dalman C, Rai D, **Lee BK**, Karlsson H. The association of paternal IQ with autism spectrum disorders and its comorbidities. *J Am Acad Child Adol Psy*, 2019 Apr 23. pii: S0890-8567(19)30271-0.

<https://www.ncbi.nlm.nih.gov/pubmed/31026573>

64. **Lee BK**<sup>†</sup>, 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. *European Journal of Epidemiology*, 2019 Aug;34(8):785-792.

<https://www.ncbi.nlm.nih.gov/pubmed/30891686>

63. \*Pistilli M, Howard V, Safford MM, **Lee BK**, Lovasi G, Cushman M, Malek AM, McClure LA. Association of Environmental Tobacco Smoke Exposure during Childhood on Adult Cardiovascular Disease Risk among Nonsmokers. *Annals of Epidemiology*, 2019;32:28-34.e1.

<https://www.ncbi.nlm.nih.gov/pubmed/30799203>

62. \*Xie S, Karlsson H, Dalman C, Widman L, Rai D, Gardner RM, Magnusson C, Schendel DE, Newschaffer CJ, **Lee BK**<sup>†</sup>. Family history of mental and neurologic disorders and risk of autism. *JAMA Network Open*, 2019;2(3):e190154.

<https://www.ncbi.nlm.nih.gov/pubmed/30821823>

61. 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. Exploring Comorbidity Within Mental Disorders Among a Danish National Population. *JAMA Psychiatry*, 2019 Jan 16.

<https://www.ncbi.nlm.nih.gov/pubmed/30649197>

2018 (Jan-Jun sabbatical)

60. \*Tan Y, Thomas S, **Lee BK**<sup>†</sup>. Parent-reported prevalence of food allergies in children with autism spectrum disorder: National Health Interview Survey, 2011-2015. *Autism Research*, 2019 May;12(5):802-805.

<https://www.ncbi.nlm.nih.gov/pubmed/30964233>

59. 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>

58. 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

57. 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>

56. \*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>

55. \*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>

54. 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>

53. **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>

52. 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>

51. 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>

50. Lyall 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>

49. \*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

48. 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>

47. 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>

46. 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>

45. **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>

44. 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>

43. \*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>

42. \*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>

41. 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 and earlier

40. \*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>

39. 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>
38. \*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>
37. 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>
36. 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>
35. \*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>
34. 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>
33. †**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>
32. †**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*
31. \*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>
30. \*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>

29. \*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>
28. \*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>
27. 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>
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8. †**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>
7. †**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>
6. †**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>
5. †**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>
4. **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>
3. 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>
2. **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>
1. 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.

#### *Popular press*

**Lee BK**. Does lithium in drinking water contribute to autism? Spectrum. Online April 11, 2023 at [www.spectrumnews.org](http://www.spectrumnews.org)

**Lee BK.** Autism heritability: it probably does not mean what you think it means. Spectrum.  
Online January 7, 2020 at [www.spectrumnews.org](http://www.spectrumnews.org)

**Lee BK.** Autism Acceptance Month: What Autism Acceptance Month Means to an  
Epidemiologist. <http://ow.ly/YFvZ50lJXu9>

## CURRICULUM VITAE

Brian K. Lee

Part II

### TEACHING

#### *Classroom Instruction*

Drexel University School of Public Health

Primary Instructor

2022	Causal Inference in Epidemiology: Application
Summer 2021	Introduction to R for Public Health Research
2017, '19-21, 23	Data Science Using R
2016-23	Proposal Writing Seminar
2011-17, 20	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

2024	Causal Inference in Epidemiology
2017	Causal Inference in Epidemiology
2014-23	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
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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*

Deepika Chauhan, Epidemiology (enrolled 2023)

Viktor Ahlqvist, Karolinska Institute (co-supervised, enrolled 2020)

Caichen (Karol) Zhong, Epidemiology (defended 2023). “Maternal psychotropic medication use during pregnancy and child health outcomes.”

Jessica Rast, Epidemiology (defended 2022). “Maternal health and antiseizure medication use during pregnancy.”

Sherlly Xie, Epidemiology (defended 2018). “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*

Andrea Jaffe

Samantha Kargbo

Colton Aksomitus

Diana Smith

Zakeya Flowers

Aditi Wagle

Katelynn Stanley

Sumbul Murtaza

Zulfiquar Hasan

Himani Patel, Epidemiology

Tara McGarty, Epidemiology

Tai-Yu Liu, Epidemiology

Kiara Warren, Epidemiology

Frank Cottone, Epidemiology

Dzhuliyana Handarova, Epidemiology  
Ciara O'Sullivan, Epidemiology  
Ihunanya Nwoji, Epidemiology  
Tobechukwu Ezech, Epidemiology  
Deepika Chauhan, Epidemiology  
Jannie Kim, Epidemiology  
Alexis Brzuchalski, Epidemiology  
Raven Carter, Epidemiology  
Virginia Noblet, Epidemiology  
Maxwell Boamah, Epidemiology  
Mavis Choi, Epidemiology  
Raven Jones, Epidemiology  
Yuling Tan, Epidemiology  
Shivanshu Awasthi, Epidemiology  
Kara Fisher, Epidemiology  
Shruti Desai, Epidemiology  
Jennifer Macfarlan, Epidemiology  
Hanyang Shen, Epidemiology  
Shiny Thomas, Epidemiology  
Emily Valencia, Epidemiology  
Ludi Jin, Biostatistics  
Kalani Dodampahala, Epidemiology  
Genna Drauschak, Epidemiology  
Baljot Kaur, Epidemiology  
Michelle Klawans, Epidemiology  
Amit Mukherji, Epidemiology  
Brittany Rosen, Environmental and Occupational Health  
Jessica Davies, Epidemiology  
Sonali Shambhu, Epidemiology  
Elizabeth DeVilbiss, Epidemiology  
Rikita Hatia, Epidemiology  
Kevin Houck, Epidemiology  
Janay Jeter, Epidemiology  
Tsz Hin Ng, Epidemiology  
Cathy Nguyen, Epidemiology  
Tao Yang, Biostatistics  
Melissa Geary, Epidemiology  
Sarah Pan, Epidemiology

**THESIS OPPONENT**

Evora Chu (Epidemiology PhD 2023, The Chinese University of Hong Kong). The association between autism spectrum disorders and rheumatoid arthritis.

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.”

Yichen Zhong, (Epidemiology PhD 2020), “The Impact of Beverage Tax and Price Promotion on Sugar-Sweetened Beverage Consumption and Purchases.”

Leny Mathew, (Epidemiology PhD 2020), “Phthalate metabolites and neurodevelopmental disorders.”

Daniel Vader, (Epidemiology PhD 2020), “Misclassification and biased estimates of adult hepatitis B immune prevalence in the United States.”

Janene Brown, (Epidemiology PhD 2021), “Extending Income Measurement and Modeling Options for Injury Epidemiology.”

Dominique McDaniel (Biostatistics PhD 2023), “Principal stratification and Bayesian testing in clinical trials with intercurrent events.”

Jintong Hou (Biostatistics)

Jenna Carcione (Biostatistics)

Meghan Carey (Epidemiology)

Rachel Vecchione (Epidemiology)

Jessica Webster (Epidemiology)

Rachit Sharma (Environmental and Occupational Health)

### **RESEARCH GRANT PARTICIPATION**

*Current*

3 P50HD111142-02S1

“Leveraging Claims Data to Compare Disparities in Health Outcomes for Autistic People and People With Down Syndrome”

Role: Co-I (PI: Robins, Schendel). 10% effort. Total amount: \$462,635

1 R01 NS131433-01 5/1/2023-4/30/2028

“LEGENNDS: Linking Epidemiology and Genetics of Neurodevelopmental and Neurodegenerative Disorders Study”

Role: PI. 20% effort. Total amount: \$4,023,788

NICHD 1P50HD11142-01, 9/6/2022-8/31/2026

“Public health and autism science advancing equitable strategies across the lifespan (PHASES)”

Role: Co-I (PI: Robins, Schendel). ~25% effort across 2 projects. Total amount: \$10,056,407

NIH 1U54CA267735-01

“Catalyzing Systemic Change at Drexel University to Support Diverse Faculty in Health Disparities Research:”

Role: Mentor (mPI: Diez-Roux, Gitlin). 0% effort. Total amount: \$14,391,741

NINDS 1R01NS107607-01A1, 6/1/19 – 4/30/23 (NCE 4/30/24)

“Maternal epilepsy, antiepileptic drug use during pregnancy, and risk of autism”

Role: PI (co-PIs: Magnusson, Rai). 30% effort. Total amount: USD \$2,143,587

Pennsylvania Department of Human Services, Office of Developmental Programs, Bureau of Supports for Autism and Special Populations, 7/1/19-6/30/23 (renewed annually). “Autism Services, Education, Resources, and Training Collaborative (ASERT).”

Role: Co-I (PI: Shea). 10% effort. Total amount: \$960,000

### *Completed*

Department of Defense, 7/1/20-6/30/23

“Community participation, service needs, and health outcomes among adults with autism”

Role: Co-I (PI: Shea). 6.67% effort. Total amount: \$756,538

Pennsylvania Department of Health CURE grant SAP # 4100085747, 6/1/20-6/30/23

“Psychotropic medication use in persons with autism in the national U.S. population”

Role: PI. 5% effort. Total amount: \$89,077

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), 15% effort Y1, 20% effort Y2. 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), 10% effort. 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), 10% effort. 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), 10% effort. 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, 15% effort. 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, 25% effort. 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, 5% effort. Total amount: \$4,197,414

NIEHS R01, 10/2009-9/2011

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

Role: Co-I, 7.5% effort. 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*

2023	Lecturer, PHASES Trainee Seminar
2023	Chair, Epi/Bio faculty search committee
2023	FIRST Faculty Mentor
2023	Faculty Senate Misconduct Committee
2023	Associate Director, Epidemiology Graduate Program
2023	Faculty mentor, Drexel Grant Writing Workshop
2023	A.J. Drexel Autism Institute Appointments, Promotions, and Tenure committee
2023-	Senator, Faculty Senate

2019- Chair, Epidemiology Graduate Program comprehensive exams subcommittee  
2020-2023 Dean's Scholarship Award Committee  
2021 Epi/Bio faculty search committee  
2021-22 Interim Director, Epidemiology Graduate Program  
2020-21 Population Health Symposium committee  
2019 Environmental and Occupational Health Departmental Chair Review committee  
2018 A.J. Drexel Autism Institute faculty search committee  
2018 Epi/Bio Program Alignment and Review committee  
2018- Epidemiology Graduate Program committee  
2016 Drexel 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  
2014-2015 Chair, Research and Finance subcommittee, Faculty Senate Research and Scholarly Activity Committee  
2014-2015 Ep/Bio Chair search committee  
2014-2020 Epi/Bio MS/PhD admissions committee  
2014 A.J. Drexel Autism Institute Exposure Science faculty search  
2013-15 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 curriculum committee

*Johns Hopkins Bloomberg School of Public Health*

2019 Alumni career mentorship panel  
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

### **MENTORING**

I am the formal academic mentor for two junior faculty, and informal mentor for a number of other junior faculty. My mentees include women and persons from underrepresented groups including by race/ethnicity.

### **CONFERENCE LEADERSHIP**

Senior expert, Research Rapid Rounds mentoring event for early-career investigators. 2023 International Society for Autism Research, Stockholm.

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 (incomplete list)**

*Invited talks at scientific meetings*

Carey ME, Lyall K, Schendel D, Holmes LG, **Lee BK**, Shea LL. Prevalence and patterns of co-occurring mental health conditions and intellectual and developmental disabilities among autistic youth and young adults. International Society for Autism Research (INSAR) Annual Meeting, Stockholm, Sweden, May 2023.

**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. *15<sup>th</sup> 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 (selected list)*

Antiseizure Medication Prescribing and Its Indications during Pregnancy and Offspring Neuro-Developmental Outcomes: A Study of Two Cohorts from the UK and Sweden. *International Society of Autism Research, Stockholm 2023*.

Unrealized potential of life course epidemiology research perspectives in reviews of autistic emotional wellbeing: a systematic review of reviews. *International Society of Autism Research, Stockholm 2023*.

**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. *International Meeting for Autism Research, Montreal 2019*.

**Lee BK**, Eyles DW, Magnusson C, Newschaffer CJ, McGrath JJ, Kzaskoff D, Ko P, Dalman C, Karlsson H, Gardner RM. Developmental vitamin D and autism spectrum disorders: findings from the Stockholm Youth Cohort. *International Meeting for Autism Research, Montreal 2019*.

\*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*

“Antiseizure medication in pregnancy and offspring neurodevelopment: results from the PREPArE study.” Children’s Hospital of Philadelphia, August 2023.

“Understanding the epidemiology of autism through statistical models.” Autism Challenge Center, Moscow, Russia, April 2022 (declined due to Russian invasion).

“Environmental risk factors and autism” University of Maryland School of Medicine Grand Rounds, December 2020 (via Internet).

“Environmental risk factors and autism: an update.” Autism Challenge Center, Moscow, Russia, May 2020 (via internet).

“Nutrition during pregnancy and risk of autism: findings from the Stockholm Youth Cohort.” Transforming Autism Care Consortium, McGill University, Montreal, October 2018.

“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 *Canceled due to weather.*

“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**

### *Media coverage*

My research and expertise has been covered in local, national, and international media outlets, including the [New York Times](#), [Philadelphia Inquirer](#), [Newsweek](#), [U.S. News and World Report](#), [Yahoo News](#), [Global News](#), [Scientific American](#), [WebMD](#), [ScienceDaily](#), and more. I have been profiled by [Spectrum News](#).

### *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, risk prediction, 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