

Curriculum Vitae
Anne P. Starling, PhD

CONTACT

Department of Epidemiology
Colorado School of Public Health
University of Colorado Anschutz Medical Campus
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APPOINTMENT

2017- Assistant Professor
 Department of Epidemiology
 Colorado School of Public Health
 University of Colorado Anschutz Medical Campus, Aurora, CO

EDUCATION

2014-2017	Postdoctoral	Epidemiology, Colorado School of Public Health, University of Colorado Anschutz Medical Campus, Aurora, CO.
2009-2013	Ph.D.	Epidemiology, Gillings School of Global Public Health, University of North Carolina at Chapel Hill.
2004-2005	M.Phil.	Biological Anthropology, Leverhulme Centre for Human Evolutionary Studies, University of Cambridge, United Kingdom.
1999-2003	B.S.	Biological Anthropology and Anatomy, <i>magna cum laude</i> , Duke University, Durham, NC.

RESEARCH SUPPORT

2016-2020	A Mechanistic Study of Prenatal Air Pollution Exposure and Offspring Obesity Risk (PI) National Institute of Environmental Health Sciences K99/R00ES025817.
2018-2019	Exposure and Health Effects from Poly- and Perfluoroalkyl Substances in Colorado Water (Co-I). National Institute of Environmental Health Sciences R21ES029394.
2012-2013	Epidemiology of Perfluorinated Compounds in Pregnancy and Risk of Preeclampsia (PI/Trainee). National Institute of Environmental Health Sciences, F30ES022126.

PEER-REVIEWED PUBLICATIONS

1. Moore, B.M., **A.P. Starling**, S. Magzamen, C. Harrod, W. Allshouse, J. Adgate, B. Ringham, D. Glueck, D. Dabelea. Fetal exposure to maternal active and secondhand smoking with offspring early-life growth in the Healthy Start study. Accepted for publication in the *International Journal of Obesity*, August 14, 2018.

2. Polinski, K.J., D. Dabelea, R.F. Hamman, J.L. Adgate, A. Calafat, X. Ye, **A.P. Starling**. Distribution and predictors of urinary concentrations of phthalate metabolites and phenols among pregnant women in the Healthy Start Study. *Environmental Research*, 2018; 162:308-317.
3. Moore, B.F., K.A. Sauder, **A.P. Starling**, J.R. Hebert, N. Shivappa, B.M. Ringham, D.H. Glueck, D. Dabelea. Pro-inflammatory diets during pregnancy and neonatal adiposity in the Healthy Start study. *The Journal of Pediatrics*, 2018, 195:121-127.
4. Felix, J.F., B.R. Joubert, A.A. Baccarelli, G.C. Sharp, C. Almqvist, I. Annesi-Maesano, H. Arshad, N. Baiz, M.J. Bakermans-Kranenburg, K.M. Bakulsky, E.B. Binder, L. Bouchard, C.V. Breton, B. Brunekreef, K.J. Brunst, E.G. Burchard, M. Bustamante, L. Chatzi, M.C. Munthe-Kaas, E. Corpeleijn, D. Czamara, D. Dabelea, G. Davey Smith, P. De Boever, L. Duijts, T. Dwyer, C. Eng, B. Eskenazi, T.M. Everson, F. Falahi, M.D. Fallin, S. Farchi, M.F. Fernandez, L. Gao, T.R. Gaunt, A. Ghanous, M.W. Gillman, S. Gonseth, V. Grote, O. Gruziova, S.E. Haberg, Z. Herceg, M. Hivert, N. Holland, J.W. Holloway, C. Hoyo, K. Hu, R. Huang, K. Huen, M. Jarvelin, D.D. Jima, A.C. Just, M.R. Karagas, R. Karlsson, W. Karmaus, K.J. Kechris, J. Kere, M. Kogevinas, B. Koletzko, G.H. Koppelman, L.K. Kusters, C. Ladd-Acosta, J. Lahti, N. Lambrechts, S.A.S. Langie, R.T. Lie, A.H. Liu, M.C. Magnus, P. Magnus, R.L. Maguire, C.J. Marsit, W. McArdle, E. Melen, P. Melton, S.K. Murphy, T.S. Nawrot, L. Nistico, E.A. Nohr, B. Nordlund, W. Nystad, S.S. Oh, E. Oken, C.M. Page, P. Perron, G. Pershagen, C. Pizzi, M. Plusquin, K. Raikkonen, S.E. Reese, E. Reischl, L. Richiardi, S. Ring, R.P. Roy, P. Rzehak, G. Schoeters, D.A. Schwartz, S. Sebert, H. Sneider, T.I.A. Sorensen, **A.P. Starling**, J. Sunyer, J.A. Taylor, H. Tiemeier, V. Ullema, M. Vafeiadi, M.H. van Ijzendoorn, J.M. Vonk, A. Vriens, M. Vrijheid, P. Wang, J.L. Wiemels, A.J. Wilcox, R.J. Wright, C. Xu, Z. Xu, I.V. Yang, P. Yousefi, H. Zhang, W. Zhang, S. Zhao, G. Agha, C.L. Relton, V.W.V. Jaddoe, S.J. London. Cohort profile: Pregnancy and Childhood Epigenetics (PACE) Consortium. *International Journal of Epidemiology*, 2018; 47(1):22-23u.
5. Lutz, S.M, A. Thwing, S. Schmiede, M. Kroehl, C. Baker, **A.P. Starling**, J.E. Hokanson, D. Ghosh. Examining the role of unmeasured confounding in mediation analysis with genetic and genomic applications. *BMC Bioinformatics*, 2017; 18(1):344.
6. Moore, B.F., K.A. Sauder, **A.P. Starling**, B.M. Ringham, D.H. Glueck, D. Dabelea. Exposure to secondhand smoke, exclusive breastfeeding and infant adiposity at age 5 months in the Healthy Start study. *Pediatric Obesity*, 2017; 12 Suppl 1:111-119.
7. Perng, W., B. Ringham, D.H. Glueck, K.A. Sauder, **A.P. Starling**, M.B. Belfort, D. Dabelea. An observational cohort study of weight- and length-derived anthropometric indicators with body composition at birth and 5 months: The Healthy Start Study. *American Journal of Clinical Nutrition*, 2017; 106(2):559-567.
8. **Starling, A.P.**, K.A. Sauder, J.L. Kaar, A.L.B. Shapiro, A. Siega-Riz, D. Dabelea. Maternal dietary patterns during pregnancy are associated with newborn body composition. *Journal of Nutrition*, 2017; 147(7):1334-1339.
9. Sauder K.A., J.L. Kaar, **A.P. Starling**, B.M. Ringham, D.H. Glueck, D. Dabelea. Predictors of infant body composition at 5 months of age: The Healthy Start Study. *Journal of Pediatrics*, 2017; 183:94-99.e1.

10. **Starling, A.P.**, A.L. Shapiro, K.A. Sauder, J.L. Kaar, B.M. Ringham, D.H. Glueck, H.L. Galan, D. Dabelea. Blood pressure during pregnancy, neonatal size and altered body composition: The Healthy Start Study. *Journal of Perinatology*, 2017; 37(5):502-506.
11. **Starling, A.P.**, J.A. Adgate, R.F. Hamman, K. Kechris, A. Calafat, X. Ye, D. Dabelea. Perfluoroalkyl substances during pregnancy and offspring weight and adiposity at birth: examining mediation by maternal fasting glucose in the Healthy Start Study. *Environmental Health Perspectives*, 2017; 125(6):067016. DOI:10.1289/EHP641
12. Shapiro, A.L.B., J.L. Kaar, T.L. Crume, **A.P. Starling**, A.M. Siega-Riz, B. Ringham, D. Glueck, J. Norris, L. Barbour, J.E. Friedman, D. Dabelea. Maternal diet quality in pregnancy and neonatal adiposity: The Healthy Start Study. *International Journal of Obesity*, 2016; 40(7):1056-62.
13. Sauder K.A., **A.P. Starling**, A.L. Shapiro, J.L. Kaar, B.M. Ringham, D.H. Glueck, J. Leiferman, A.M. Siega-Riz, D. Dabelea. Diet, physical activity and mental health status are associated with dysglycaemia in pregnancy: The Healthy Start Study. *Diabetic Medicine*, 2016; 33(5):663-7.
14. Sauder, K.A., **A.P. Starling**, A.L. Shapiro, J.L. Kaar, B.M. Ringham, D.H. Glueck, D. Dabelea. Exploring the association between maternal prenatal multivitamin use and early infant growth: The Healthy Start Study. *Pediatric Obesity*, 2016; 11(5):434-41.
15. Perreault, L., **A.P. Starling**, D. Glueck, J.T. Brozinick, P. Sanders, P. Siddall, M.S. Kuo, D. Dabelea, B.C. Bergman. Biomarkers of ectopic fat deposition: the next frontier in serum lipidomics. *Journal of Clinical Endocrinology and Metabolism*, 2016; 101(1):176-82.
16. **Starling, A.P.**, L.S. Engel, A.M. Calafat, S. Koutros, J. Satagopan, G. Yang, C.E. Matthews, Q. Cai, J.P. Buckley, B. Ji, H. Cai, W. Chow, W. Zheng, Y. Gao, N. Rothman, Y. Xiang, X. Shu. Predictors and long-term reproducibility of urinary phthalate metabolites in middle-aged men and women living in urban Shanghai. *Environment International*, 2015; 84:94-106.
17. **Starling, A.P.** and J.A. Hoppin. Environmental chemical risk factors for type 2 diabetes: an update. *Diabetes Management*, 2015; 5(4):285-99.
18. **Starling, A.P.**, J.T. Brinton, D.H. Glueck, A.L. Shapiro, C.S. Harrod, A.M. Lynch, A.M. Siega-Riz, D. Dabelea. Associations of maternal BMI and gestational weight gain with neonatal adiposity in the Healthy Start Study. *American Journal of Clinical Nutrition*, 2015; 101(2):294-301.
19. Klungsoyr K., Q.E. Harmon, L.B. Skard, I. Simonsen, E.T. Austvoll, E.R. Alsaker, **A. Starling**, L. Trogstad, P. Magnus, S.M. Engel. Validity of pre-eclampsia registration in the Medical Birth Registry of Norway for women participating in the Norwegian Mother and Child Cohort Study, 1999-2010. *Paediatric and Perinatal Epidemiology*, 2014; 28(5):362-71.
20. **Starling, A.P.**, D.M. Umbach, F. Kamel, S. Long, D.P. Sandler, J.A. Hoppin. Pesticide use and incident diabetes among wives of farmers in the Agricultural Health Study. *Occupational and Environmental Medicine*, 2014; 71(9):629-35.
21. **Starling, A.P.**, S.M. Engel, D.B. Richardson, D.D. Baird, L.S. Haug, A.M. Stuebe, K. Klungsoyr, Q. Harmon, G. Becher, C. Thomsen, A. Sabaredzovic, M. Eggesbø, J.A. Hoppin, G.S. Travlos, R.E. Wilson, L.I. Trogstad, P. Magnus, M.P. Longnecker. Perfluoroalkyl substances during pregnancy and validated preeclampsia among nulliparous women in the Norwegian Mother and Child Cohort Study. *American Journal of Epidemiology*, 2014; 179(7):824-33.

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22. **Starling, A.P.**, S.M. Engel, K.W. Whitworth, D.B. Richardson, A.M. Stuebe, J.L. Daniels, L.S. Haug, M. Eggesbø, G. Becher, A. Sabaredzovic, C. Thomsen, R.E. Wilson, G.S. Travlos, J.A. Hoppin, D.D. Baird, M.P. Longnecker. Perfluoroalkyl substances and lipid concentrations in plasma during pregnancy among women in the Norwegian Mother and Child Cohort Study. *Environment International*, 2014; 62:104-12.
23. Wang, Y., **A.P. Starling**, L.S. Haug, M. Eggesbø, G. Becher, C. Thomsen, G. Travlos, D. King, J.A. Hoppin, W.J. Rogan, M.P. Longnecker. Association between perfluoroalkyl substances and thyroid stimulating hormone among pregnant women: A cross-sectional study. *Environmental Health*, 2013; 12(1):76.
24. **Starling, A.P.**, M.J.E. Charpentier, C. Fitzpatrick, E.S. Scordato, and C.M. Drea. Seasonality, sociality, and reproduction: Long-term stressors of ring-tailed lemurs (*Lemur catta*). *Hormones and Behavior*, 2010; 57:76-85.
25. **Starling, A.P.** and J.T. Stock. Dental indicators of health and stress in early Egyptian and Nubian agriculturalists: A difficult transition and gradual recovery. *American Journal of Physical Anthropology*, 2007; 134:520-528.

BOOK CHAPTERS

Starling, A.P. and D. Dabelea. Diabetes in pregnancy: implications for the offspring. *A Practical Manual of Diabetes in Pregnancy, 2nd Edition*. Eds: D. McCance, M. Maresh, D. Sacks. West Sussex: Wiley-Blackwell, 2017.

CONFERENCE PRESENTATIONS AND ABSTRACTS

Starling, A.P., D.S.K. Thomas, J.L. Peel, D. Dabelea. Prenatal Exposure to Traffic-Related Air Pollution and Offspring Adiposity at Birth and at 5 Months of Age: The Healthy Start ECHO Cohort.

Oral presentation, United States Society for Developmental Origins of Health and Disease 3rd Annual Conference, Chapel Hill, NC, Oct 2018.

Martenies, S.E., Allshouse W., **Starling, A.**, Ringham, B.M., Glueck, D.H., Adgate, J.L., Dabelea, D., Magzamen, S. Prenatal environmental and social exposures and associations with weight and adiposity at birth in the Denver Healthy Start birth cohort.

Oral presentation, International Society for Environmental Epidemiology, Ottawa, Canada, Aug 2018.

Woodruff, T., Buckley, J., Balshaw, D., Barrett, E., Beamer, P., Bloom, M., Bradman, A., Fennel, T., Fry, R., Funk, W., Gleason, K., Hamra, G., Heaney, C., Iyer, S., Karagas, M., Lyall, K., Pelizzarri, E., **Starling, A.**, Wang, A., Watkins, D. for the ECHO Program. Prioritizing chemicals for biomonitoring in ECHO to maximize public health impact.

Oral presentation, International Society for Environmental Epidemiology, Ottawa, Canada, Aug 2018.

Borengasser, S.J., **A.P. Starling**, W. Zhang, J.E. Friedman, R.F. Hamman, L. Lange, I.V. Yang, K. Kechris, D. Dabelea. DNA methylation at birth is associated with adiposity and infant growth during the first 6 months of life in the Healthy Start study.

Oral presentation, American Diabetes Association's 78th Scientific Sessions, Orlando, FL, Jun 2018.

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Hockett, C.W., **A.P. Starling**, B.F. Moore, A. Bellatorre, J. Aalborg, K.A. Sauder, A. Scherzinger, K. Garg, B.M. Ringham, D.H. Glueck, D. Dabelea. Adiposity and cardiovascular markers in offspring of women with diabetes during pregnancy – the EPOCH Study.

Oral presentation, American Diabetes Association's 78th Scientific Sessions, Orlando, FL, Jun 2018.

Perng, W., B. Ringham, D.H. Glueck, K.A. Sauder, **A.P. Starling**, M.B. Belfort, D. Dabelea. Associations of weight- and length-derived anthropometric indicators with body composition at birth and 5 months: The Healthy Start Study.

Poster presentation, Society for Pediatric and Perinatal Epidemiologic Research Annual Meeting, Seattle, WA, Jun 2017.

Starling, A.P., J.L. Adgate, R.F. Hamman, K. Kechris, X. Ye, A.M. Calafat, D. Dabelea. Prenatal exposure to phthalates and infant adiposity at birth and at 5 months of age: The Healthy Start Study.

Poster presentation, National Institute of Environmental Health Sciences' meeting, 25 Years of Endocrine Disruption Research: Past Lessons and Future Directions. Research Triangle Park, NC, Sep 2016.

Starling, A.P., J.L. Adgate, R.F. Hamman, K. Kechris, X. Ye, A.M. Calafat, D. Dabelea. Prenatal exposures to perfluoroalkyl substances are associated with sex-specific differences in infant size and body composition: The Healthy Start Study.

Oral presentation, International Society for Environmental Epidemiology Annual Meeting, Rome, Italy, Sep 2016.

Starling, A.P., J.L. Kaar, K.A. Sauder, A.L.B. Shapiro, D. Dabelea. Maternal dietary patterns during pregnancy and gestational weight gain: The Healthy Start Study.

Poster presentation, American Diabetes Association 76th Scientific Sessions, New Orleans, LA. Jun 2016.

Sauder, K.A., **A.P. Starling**, J.L. Kaar, B.M. Ringham, D.H. Glueck, D. Dabelea. Associations of maternal weight, weight gain, and breastfeeding with offspring body composition in early life: The Healthy Start Study.

Oral presentation, American Diabetes Association 76th Scientific Sessions, New Orleans, LA. Jun 2016.

Starling, A.P., J.L. Adgate, R.F. Hamman, D. Dabelea. Maternal obesity modifies the association between endocrine-disrupting chemicals and metabolic measures among pregnant women in the Healthy Start study.

Poster presentation, Rocky Mountain Reproductive Sciences Symposium, Loveland, CO, Apr 2016.

Sauder, K.A., J.L. Kaar, **A.P. Starling**, B.M. Ringham, D.H. Glueck, D. Dabelea. Maternal, prenatal, and postnatal predictors of early infant growth: The Healthy Start Study.

Poster presentation, European Diabetes Epidemiology Group Annual Meeting, Kildare, Ireland, Apr 2016.

Kaar, J.L., K.A. Sauder, T.L. Crume, A.L.B. Shapiro, **A.P. Starling**, D. Dabelea. Infant feeding practices in a diverse group of women: The Healthy Start Study.

Oral presentation to the American Society of Nutrition Annual Meeting at Experimental Biology, San Diego, CA. Apr 2016.

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Starling, A.P., K. Kechris, D. Dabelea, J.L. Adgate. Identifying the relative importance of multiple correlated exposures in predicting a continuous outcome using the random forest ensemble learning method.

Poster presentation to the National Institute of Environmental Health Sciences workshop, “Statistical Approaches for Assessing Health Effects of Environmental Chemical Mixtures in Epidemiology Studies,” Research Triangle Park, NC. Jul 2015.

Starling, A.P., J.L. Peel, S.J. Dutton, M.P. Hannigan, S.L. Miller, J.B. Milford, S.Vedal. Ambient air pollution and the risk of preterm birth.

Poster presentation, Society for Epidemiologic Research Annual Meeting, Denver, CO. Jun 2015.

Starling, A.P., A.L. Shapiro, J. Kaar, K.A. Sauder, T. Crume, D.H. Glueck, B.M. Ringham, A.M. Siega-Riz, D. Dabelea. Diet quality during pregnancy and risk of gestational diabetes: the Healthy Start study.

Poster presentation, American Diabetes Association 75th Scientific Sessions, Boston, MA. Jun 2015.

Abstract published in *Diabetes*, 2015; 64(suppl.1):A421.

Sauder, K.A., **A.P. Starling**, J.L. Kaar, A.L. Shapiro, B. Ringham, D.H. Glueck, D. Dabelea.

Multivitamin supplementation during pregnancy and offspring adiposity: the Healthy Start study.

Publication only, American Diabetes Association 75th Scientific Sessions, Boston, MA. Jun 2015.

Abstract published in *Diabetes*, 2015; 64(suppl.1):A693.

Sauder, K.A., **A.P. Starling**, A.L. Shapiro, B. Ringham, D.H. Glueck, J. Leiferman, A.M. Siega-Riz, D. Dabelea. Multiple healthy behaviors and risk of prenatal dysglycemia: the Healthy Start Study.

Poster presentation, American Diabetes Association 75th Scientific Sessions, Boston, MA. Jun 2015.

Abstract published in *Diabetes*, 2015; 64(suppl.1):A430-A431.

Shapiro, A, J. Kaar, T. Crume, **A. Starling**, B. Ringham, D. Glueck, A.M. Siega-Riz, D. Dabelea. Maternal diet quality and obesity in pregnancy jointly influence neonatal adiposity: The Healthy Start Study.

Presentation to the American Society of Nutrition Scientific Sessions at Experimental Biology, Boston, MA. Mar 2015.

Starling, A.P., J.T. Brinton, D.H. Glueck, A.L. Shapiro, C.S. Harrod, A.M. Lynch, A.M. Siega-Riz, D. Dabelea. Associations of maternal body mass index and gestational weight gain with neonatal adiposity in the Healthy Start Study.

Oral presentation, The Obesity Society Annual Meeting, Boston, MA. Nov 2014.

Starling A., S. Engel, D. Richardson, J. Daniels, A. Stuebe, L. Haug, K. Klungsøyr, Q. Harmon, R. Skjærven, M. Eggesbø, M. Longnecker. 2013. Perfluoroalkyl substances in mid-pregnancy and preeclampsia in the Norwegian Mother and Child Cohort Study.

Oral presentation by Matthew P. Longnecker to the Conference of the International Society for Environmental Epidemiology, Basel, Switzerland. Aug 2013.

Starling A.P., F. Kamel, D.M. Umbach, D.P. Sandler, J.A. Hoppin. 2012. Pesticide use and incident diabetes among women in the Agricultural Health Study.

Poster presentation, Society for Epidemiologic Research Annual Meeting, Minneapolis, MN. Jun 2012. Abstract published in the *American Journal of Epidemiology*, 2012; 175(suppl.11):S66.

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TEACHING

Course Director		
2018		Analytical Epidemiology, Colorado School of Public Health, University of Colorado Anschutz Medical Campus, Aurora, CO. Intermediate-level methods course for masters and doctoral students.
Co-Instructor		
2014-2015		Introductory Epidemiology, Colorado School of Public Health, University of Colorado Anschutz Medical Campus, Aurora, CO. Large (150 student) introductory course for Masters of Public Health students.
Guest Lecturer		
2016		Advanced Epidemiology, Colorado School of Public Health, University of Colorado Anschutz Medical Campus, Aurora, CO. Seminar on methods for Epidemiology PhD and Masters of Public Health students.
2015		Applied Regression Topics, Department of Epidemiology, Colorado State University, Fort Collins, CO. Introduced regression models for exposure mixtures to a small graduate seminar.
2015		Clinical Epidemiology and Biostatistics, Colorado School of Medicine, University of Colorado Anschutz Medical Campus, Aurora, CO. Small group leader for medical student exercise.