NIEHS-Funded Researchers Bring Solutions to Children in Rural Agricultural Communities

1. Mortimer KM, Neas LM, Dockery DW, Redline S, Tager IB. (2002). The effect of air pollution on inner-city children with asthma. European Respiratory Journal 19: 699-705 DOI: 10.1183/09031936.02.00247102
2. Armstrong JL, Fitzpatrick CF, Loftus CT, Yost MG, Tchong-French MI, Karr CJ. 2013. Development of a unique multi-contaminant air sampling device for a childhood asthma cohort in an agricultural environment. Environmental Sci Process Impacts 15(9): 1760–1767. doi:10.1039/c3em00330b PMID:23896655Noss I, Doekes G, Sander I, Heederik DJJ, Thorne PS, Wouters IM. 2010. Passive airborne dust sampling with the electrostatic dustfall collector: Optimization of storage and extraction procedures for endotoxin and glucan measurement. Ann Occup Hyg 54(6):651-658. doi:10.1093/annhyg/meq026
3. Noss I, Wouters IM, Bezemer G, Metwali N, Sander I, Raulf-Heimsoth M, Heederik DJ, Thorne PS, Doekes G. 2010. Beta-(1,3)-Glucan exposure assessment by passive airborne dust sampling and new sensitive immunoassays. Appl Environ Microbiol 76(4):1158-67. doi:10.1128/AEM.01486-09 PMID:20038709 PMCID:PMC2820944
4. Noss I, Doekes G, Sander I, Heederik DJJ, Thorne PS, Wouters IM. 2010. Passive airborne dust sampling with the electrostatic dustfall collector: Optimization of storage and extraction procedures for endotoxin and glucan measurement. Ann Occup Hyg 54(6):651-658. doi:10.1093/annhyg/meq026
5. Karr, C. 2009. Aggravating Factors of Asthma in a Rural Environment (AFARE). Available online at https://deohs.washington.edu/pnash/aggravating-factors-asthma-rural-environment-afare. Accessed October 2021.
6. Loftus C, Yost M, Sampson P, Torres E, Arias G, Breckwich Vasquez V, Hartin K, Armstrong J, Tchong-French MI, Vedal S, Bhatti P, Karr CJ. 2015. Ambient ammonia exposures in an agricultural community and pediatric asthma morbidity. Epidemiology 26(6):794-801.
7. Williams DL, Breysse PN, McCormack MC, Diette GB, McKenzie S, Geyh AS. 2011. Airborne cow allergen, ammonia and particulate matter at homes vary with distance to industrial scale dairy operations: An exposure assessment. Environ Health 10(72). doi:10.1186/1476-069X-10-72 PMID:21838896
8. Rabinovitch N. 2007. Urinary leukotriene E4. Immunol Allergy Clin North Am 27(4):651-664. doi:10.1016/j.iac.2007.09.004 PMID:17996582
9. Loftus C, Afsharinejad Z, Sampson P, Vedal S, Torres E, Arias G, Tchong-French MI, Karr CJ. 2020. Estimated time-varying exposures to air emissions from animal feeding operations and childhood asthma. Int J Hyg Environ Health 223(1):187-198. PMID:31543304
10. Masterson EE, Younglove LB, Perez A, Torres E, Krenz JE, Tchong-French MI, Riederer AM, Sampson PD, Metwali N, Min E, Jansen KL, Aisenberg G, Babadi RS, Farquhar SA, Thorne PS, Karr CJ. 2020. The home air in agriculture pediatric intervention (HAPI) trial: Rationale and methods. Contemp Clin Trials 96:106085. PMID:32721578
11. Jack DW, Asante KP, Wylie BJ, Chillrud SN, Whyatt RM, Ae-Ngibise KA, Quinn AK, Yawson AK, Boamah EA, Agyei O, Mujtaba M, Kaali S, Kinney P, Owusu-Agyei S. 2015. Ghana randomized air

pollution and health study (GRAPHS): Study protocol for a randomized controlled trial. Trials 16:420. PMID:26395578

12. Loftus C, Yost MG, Sampson P, Arias G, Torres E, Vasquez VB, Bhatti P, Karr CJ. 2015. Regional PM2.5 and asthma morbidity in an agricultural community: A panel study. Environ Res 136:505-12. PMID:25460673 PMCID:PMC4425279

13. Benka-Coker W, Loftus C, Magzamen S, Karr CJ. 2019. Characterizing the joint effects of pesticide exposure and criteria ambient air pollutants on pediatric asthma morbidity in an agricultural community. Environ Epidemiol 3(3):e046. doi:10.1097/EE9.0000000000000046 PMID:31342006 PMCID:PMC6571181

14. Benka-Coker W, Loftus C, Magzamen S, Karr CJ. 2019. Association of organophosphate pesticide exposure and a marker of asthma morbidity in an agricultural community. J Agromedicine 25:106-114. doi:10.1080/1059924X.2019.1619644 PMID:31130077 PMCID:PMC6875607

15. Riederer AM, Krenz JE, Tchong-French MI, Torres E, Perez A, Younglove LR, Jansen KL, Hardie DC, Farquhar SA, Sampson PD, Metwali N, Thorne PS, Karr CJ. 2021. Effectiveness of portable HEPA air cleaners on reducing indoor endotoxin, PM10, and coarse particulate matter in an agricultural cohort of children with asthma: A randomized intervention trial. Indoor Air 31(6):1926-1939. doi:10.1111/ina.12858 PMID:34288127

16. Riederer AM, Krenz JE, Tchong-French MI, Torres E, Perez A, Younglove LR, Jansen KL, Hardie DC, Farquhar SA, Sampson PD, Karr CJ. 2021. Effectiveness of portable HEPA air cleaners on reducing indoor PM2.5 and NH3 in an agricultural cohort of children with asthma: A randomized intervention trial. Indoor Air 31(2):454-466. doi:10.1111/ina.12753

17. Drieling R, Sampson P, Krenz J, French MT, Jansen K, Massey A, Farquhar S, Min E, Perez A, Riederer A, Torres E, Younglove L, Aisenberg E, Andra S, Kim-Schulze S, Karr CJ. 2022. Randomized trial of a portable HEPA /air cleaner intervention to reduce asthma morbidity among Latino children in an agricultural community. Environmental Health. 21:1. doi:10.1186/s12940-021-00816-w

18. Centers for Disease Control and Prevention. 2018. Asthma in children. [Website.] https://www.cdc.gov/vitalsigns/childhood-asthma/index.html. [accessed October 28 2021]

19. United States Environmental Protection Agency. 2014. Children's environmental health disparities: Hispanic and Latino American children and asthma. Available from: https://www.epa.gov/sites/default/files/2014-05/documents/hd_hispanic_asthma.pdf.

20. Centers for Disease Control and Prevention. 2020. Most Recent National Asthma Data. [Website.] https://www.cdc.gov/asthma/most_recent_national_asthma_data.htm [Accessed September 27, 2022]