

## **PERSONAL INFORMATION**

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College of Public Health  
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## **EDUCATION**

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| 2002-2004 | <b>Post Doctoral Fellowship</b><br>NIEHS T32 training program,<br>Molecular Epidemiology in Children's Environmental Health<br>Department of Environmental Health<br>University of Cincinnati College of Medicine |
| 2002      | <b>Doctor of Public Health</b><br>Environmental Health Sciences<br>University of Michigan School of Public Health Ann Arbor, MI   |
| 1997      | <b>Master of Science</b><br>Department of Environmental Health, Division of Toxicology<br>University of Cincinnati College of Medicine  |
| 1995      | <b>Bachelor of Science</b><br>Major: Biology<br>Minor: Chemistry<br>Wilmington College, Wilmington, Ohio.<br>Green Key National Honor Society   |

## **ACADEMIC & PROFESSIONAL APPOINTMENTS**

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### **University of Kentucky College of Public Health**

Professor and Chair, Department of Epidemiology and Environmental Health (2022-present)  
Kurt W. Deuschle Professor in Preventive Medicine and Environmental Health (2019-present)  
Chair, Department of Epidemiology (2018-2022)  
Chair, Department of Preventive Medicine and Environmental Health (2019-2022)  
*Interim* Chair, Department of Preventive Medicine and Environmental Health (2019-2020)

### **University of Cincinnati College of Medicine**

Professor, Division of Epidemiology, Department of Environmental Health (2018)  
Associate Professor with tenure, Division of Epidemiology, Department of Environmental Health (2014-2018)  
Assistant Professor, Division of Epidemiology and Biostatistics, Department of Environmental Health (2008-2014)  
Director, Clinical and Translational Research Training Program (2006-2018)  
Adjunct Professor, Division of Epidemiology, Department of Environmental Health (2006-2008)  
Postdoctoral Fellow, T32 Molecular Epidemiology in Children's Environmental Health (2004-2006)

**RESEARCH: GRANTS AND CONTRACTS**

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**CURRENT**

R33 NIH/NIEHS

Haynes (PI)

07/01/2019-06/30/2024

**Retention, Maintenance and Enhancement of the Communities Actively Researching Exposure Study (CARES)**

CARES has been supported by multiple NIEHS-funded grants and has been instrumental in the training of next generation community-engaged environmental health scientists for over a decade. The cohort has been instrumental in the development of a lab-on-a-chip sensor for blood metals assessment and is currently exploring the impact of Mn on neuroanatomy, function, chemistry, and physiology through magnetic resonance imaging. The goal of this study is to retain, maintain and enhance the ongoing CARES cohort.

Role: Principal Investigator

R21/R33 NIH/NIEHS

12/02/2018 – 07/31/2022, NCE

**Validation and Demonstration of point-of-care sensor for multi-metal exposure assessment.**

The goal of this project is to demonstrate validity and usability of a "laboratory-in-a-chip" sensor for rapid and accurate point-of-care measurement of metals (manganese and lead) in blood. This sensor will only require a few drops of blood per analysis providing the ability to conduct multiple blood measurements on site (point-of-care), and use in occupational and international research settings.

Role: Co-Investigator/PI of R33, Papautsky, University of Illinois, Chicago

KY CHFS

07/01/2020-06/30/2022

**Germline and Environmental Factors Associated with Pediatric Brain and Central Nervous System Tumors in Kentucky**

Pediatric brain and central nervous system tumors (PBCNST) are the most common solid tumors and are the leading cause of disease-related death in United States (U.S.) children.

PBCNST incidence rates in Kentucky are significantly higher than in the U.S. as a whole and are even higher among Kentucky's Appalachian children. To understand and eventually eliminate such cancer disparities among Kentucky children, population-based research is needed to gain a thorough understanding of the epidemiology and etiology of the disease.

Role: Co-Investigator

P42 NIH/NIEHS

04/01/2020- 1/31/2024

**Superfund Research Program**

The Superfund Research Center focuses on the health impacts of exposure to different chlorinated organic compounds, such as polychlorinated biphenyls (PCBs) and trichloroethylene (TCE) -- both of which are prevalent at Superfund sites in Kentucky and nationwide. The Data Management and Analysis Core (DMAC) of the University of Kentucky Superfund Research Center (UK-SRC) provides an integral new resource that functions as a nexus for collaborative interactions across projects and cores while providing the expertise and infrastructure to integrate datasets across projects and cores, to maintain overall data quality of datasets, and to manage the flow of data both within and outside the Center.

Role: Co-Investigator; PI: Pennell

P30 NIH/NIEHS

05/01/2017 – 03/31/2022

**Environmental Health Sciences Core Center**

The overall goal of the University of Kentucky Center for Appalachian Research and Environmental Science (UK-CARES) is to provide new opportunities and resources to support highly innovative and collaborative research studies that will enhance the ability to identify and capitalize on emerging environmental issues. This will be accomplished by providing developmental and pilot funds for innovative, time-sensitive pilot studies that improve our understanding of the relationships among environmental exposures, human biology, and disease.

Role: Deputy Director and co-I, PI: Hahn

**Center for Clinical and Translational Science**

Our overarching goal as a CTSA hub is to continue to champion innovation in the full spectrum of clinical and translational research while educating the workforce of the future, engaging our communities in biomedical science and working with the national network to advance cohesive multi-center clinical trials, which will ultimately elevate the health and quality of life of the populace of Central Appalachia.

Role: Associate Director and Co-I, PI: Kern

**RESEARCH FUNDING COMPLETED**

09/01/2019-08/31/2021 R21 NIH/NIEHS (Ryan, PI; Haynes, Co-I, PI of UK contract) Developing  
and Evaluating Novel Strategies for Reporting Back Individual Results of Personal Air Monitors

07/01/2016-06/30/2021 RO1 NIH/NIEHS (MPI, Corresponding PI)  
Developmental effects of manganese exposure in rural adolescents: the CARES cohort comes of age.

12/21/2018 – 09/30/2021 Robert Wood Johnson Foundation (MPI)  
Empowering Rural Communities for Environmental Action.

07/01/2018 – 06/30/2021 Robert Woods Johnson Foundation (Scutchfield, PI)  
Creating the Online "Journal of Appalachia Health" with a Focus on the Social and Economic Determinants of Health and Health Equity in Appalachia  
Role: Senior Associate Editor

07/01/2019-12/31/2019 NIH/NIEHS R13 (Haynes, PI)  
National Conference of State Legislatures (NCSL) Legislative Summit. Disaster Preparedness and Response Research: A Workshop for the National Conference of State Legislatures  
Role: PI

09/01/2013 – 05/30/2018 NIH/NIEHS R01ES022933 (Papautsky, PI)  
Development of a lab-on-a-chip sensor for blood metals  
Role: Co-Investigator.

April 2013- Dec 2018 NIH-NIEHS 5P30ES006096-19 (Ho, Center PI)  
Center for Environmental Genetics, Community Outreach and Education Core  
Role: Core Lead of the Community Engagement Core (CEC)

Aug 2015- Dec 2018 NIH/ NCRR 1UL1RR026314-01 (Heubi, PI)  
CCincinnati Center for Clinical and Translational Science and Training  
Role: Co-Investigator, Lead for Translational Workforce Development and Co-Lead for Community Engagement Core

Sept 2009 – Aug 2011 NIH/ NCATS 3UL1RR 026314-01S2 (Heubi, PI; Haynes Supplement PI)  
Administrative Supplement for Research Workforce Development and Dissemination, Creation of Online Certificate in Clinical and Translational Research

April 2008 - March 2013 NIEHS 1 R01 ES016531-01 (Haynes, PI)  
Marietta Community Actively Researching Exposure Study (CARES)

Sept 2012 - Aug 2014 NIH/NIEHS R21ES021106-01 (Haynes, PI)  
Multiple Risk Factors and Neurodevelopment Deficits in Rural Appalachian Children

Erin N. Haynes, DrPH, MS 3/27/2023  
 Sept 2013-Aug 2014 NIH/NIEHS 3 P30 ES006096-21S1 (Ho, Center PI)  
 Center for Environmental Genetics, supplement award with Oregon State University for hydraulic fracturing air study in Ohio

Sept 2013-Aug 2014 NIH/NIEHS 3 P30 ES006096-21S1 (Ho, Center PI).  
 Center for Environmental Genetics, supplement award with University of Pennsylvania for risk perception and hydraulic fracturing research study  
 Role: Supplement PI

Sept 2010 – Aug 2012 NIH/NIEHS R21 ES019255-01 (Papautsky, PI)  
 Multi-Metal Chip for Point-of-Care Monitoring in Children

Oct 2009 – Sept 2012 NIH/NIEHS 1R21ES017957-01 (Ryan, PI)  
 Impact of Traffic-Related Particles on Asthma for Students in an Urban School District

June 2009 – May 2011 NIH/NIEHS 3R01ES016531-02S4 (Haynes, PI)  
 Summer Student Research Award, Marietta Community Actively Researching Exposure Study

Oct 2009 – Sept 2011 NIH/NIEHS 3R01ES016531-02S3 (Haynes, PI)  
 Administrative Supplement, Marietta Community Actively Researching Exposure Study

June 2009 – May 2010 CCTST Ethics Grant (Haynes, PI)  
 The Ethics and Perceptions of Appalachian Americans to Genetic Research

Aug 2009 – July 2010 UC Center for Environmental Genetics (Haynes, PI)  
 University of Cincinnati Firefighter Pilot Research Study

July 2009 – June 2010 UC Education and Research Center (Haynes, PI)  
 Firefighters' Exposure to Fine Particles and Polycyclic Aromatic Hydrocarbons

April 2009 – March 2010 CDC/NIOSH 211-2008-M-27606 (Haynes, PI)  
 DNA Analyses to Assess Genetic Susceptibility to Manganese Neurotoxicity

July 2008 – June 2010 NIH/NIEHS 1R03ES017362-01 (Haynes, PI)  
 University of Cincinnati-Marietta-Parkersburg Metropolitan Area Reciprocal Research Relationship

June 2007 – March 2012 NIEHS R01 ES015559-01 (Dietrich, PI)  
 Early Lead Exposure, ADHD & Persistent Criminality: Role of Genes and Environment

July 2007 – June 2008 NIH/NIEHS Center for Environmental Genetics (Haynes, PI)  
 Extent of Metal Exposure in Marietta, Ohio and the Surrounding Area

July 2006 – June 2010 NIOSH 3 T42 OH008432-02S1 (Talaska, PI)  
 Biological Monitoring Component Program (ERC)

Aug 2005 - July 2010 NCRR 1 K30 RR022273-01 (Tsevat, PI)  
 National Center for Research Resources (NIH) University of Cincinnati Clinical Curriculum Award

Dec 2004 – Nov 2007 NIH/ NIEHS 5R21ES013524-02 (Haynes, PI)  
 Neurobehavioral Effects of Low-Level Manganese Exposure

Dec 2003 – Nov 2004 NIH/NIEHS Center for Environmental Genetics Pilot Project  
 Neurobehavioral Effects of Low-Level Manganese Exposure

April 2000 – March 2001      NIH/NIEHS Center for Environmental Genetics Pilot Project  
Racial Disparity in Blood Lead Concentration due to Genetic Variation in Calcium Absorption,

Sept 1999 – Aug 2000      Blue Cross Blue Shield of Michigan Foundation, Student Award  
A Systematic review of the Effect of Lead Hazard Controls on Children's Blood Lead Concentrations

Sept 1999 – Aug 2000      Michigan Campus Compact, Scholarship of Engagement  
Primary Prevention of Childhood Lead Poisoning through Maternal Education

## RESEARCH: PUBLICATIONS

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### PEER-REVIEWED JOURNAL ARTICLES

A list of published work is below.

My NCBI Bibliography (includes work published by collaborators attributed to my funding)

<http://www.ncbi.nlm.nih.gov/sites/myncbi/erin.haynes.1/bibliography/41145614/public/?sort=date&direction=ascending>

1. Newman, N. C., Knapke, J. M., Kinyalock, R., Belt, J., & **Haynes, E.** (Accepted/In press). Evaluation of academic detailing to educate clinicians regarding childhood lead poisoning prevention: a pilot study. *Journal of Osteopathic Medicine*. <https://doi.org/10.1515/jom-2022-0125>
2. Wu, Z., Heineman, W. R., **Haynes, E. N.**, & Papautsky, I. (2022). Electrochemical Determination of Manganese in Whole Blood with Indium Tin Oxide Electrode. *Journal of the Electrochemical Society*, 169(5), [057508]. <https://doi.org/10.1149/1945-7111/ac6a19>
3. Martinez M, Harry GJ, **Haynes EN**, Lin PD, Oken E, Horton MK, Wright RO, Arora M, Austin C. [Quantitative fluoride imaging of teeth using CaF emission by laser induced breakdown spectroscopy](#). *J Anal At Spectrom*. 2023 Feb 8;38(2):303-314. doi: 10.1039/d2ja00134a. eCollection 2023 Feb 8. PubMed PMID: 36776552; PubMed Central PMCID: PMC9906802.
4. Politis MD, Freedman JC, **Haynes EN**, Sanders AP. Association of Manganese Biomarker Concentrations with Blood Pressure and Kidney Parameters among Healthy Adolescents: NHANES 2013-2018. *Children (Basel)*. 2021 Sep 25;8(10):846. doi: 10.3390/children8100846. PMID: 34682111; PMCID: PMC8534392.
5. Stolfi A, Fulk F, Reponen T, Hilbert TJ, Brown D, **Haynes EN**. [AERMOD modeling of ambient manganese for residents living near a ferromanganese refinery in Marietta, OH, USA](#). *Environ Monit Assess*. 2021 Jun 13;193(7):419. doi: 10.1007/s10661-021-09206-8. PubMed PMID: 34120251; PubMed Central PMCID: PMC8569639.
6. Hilbert TJ, Brancato C, Carter K, Westneat S, Bush HM, **Haynes EN**. Disinfectant use by K-12 school staff to combat SARS-CoV-2, *American Journal of Infection Control*, doi:10.1016/j.ajic.2021.08.02
7. Martin KV, Sucharew H, Dietrich KN, Parsons PJ, Palmer CD, Wright R, Amarasingiwardena C, Smith DR, **Haynes EN**. [Co-exposure to manganese and lead and pediatric neurocognition in East Liverpool, Ohio](#). *Environ Res*. 2021 Jul 8;202:111644. doi: 10.1016/j.envres.2021.111644. [Epub ahead of print] PubMed PMID: 34246641; NIHMSID:NIHMS1723369.
8. Mottaleb AM, Ding QX, Pennel KG, **Haynes EN**, Morris AJ. Direct injection analysis of Per and Polyfluoroalkyl substances in surface and drinking water by sample filtration and Liquid chromatography-tandem mass spectrometry. *J of Chromatography*. Accepted July 16, 2021

9. **Haynes EN**, Hilbert TJ, Westneat S, Leger KA, Keynton K, Bush H. Impact of the COVID-19 Shutdown on Mental Health in Appalachia by Working Status. *J Appalach Health* 2021;3(1):18-28. <https://doi.org/10.13023/jah.0301.03>
10. **Haynes, EN**. Environmental Biodynamics: A Bold New Frontier. *BioEssays* 2020, 42, 2000225. <https://doi.org/10.1002/bies.202000225>
11. Martin KV, Edmondson D, Cecil KM, Bezi C, Vance ML, McBride D, **Haynes EN**. Manganese Exposure and Neurologic Outcomes in Adult Populations. *Neurol Clin*. 2020 Nov;38(4):913-936. doi: 10.1016/j.ncl.2020.07.008. Epub 2020 Sep 12. PMID: 33040869.
12. Balachandran RC, Mukhopadhyay S, McBride D, Veevers J, Harrison FE, Aschner M, **Haynes EN**, Bowman AB. Brain manganese and the balance between essential roles and neurotoxicity. *J Biol Chem*. 2020 May 8;295(19):6312-6329. doi: 10.1074/jbc.REV119.009453. Epub 2020 Mar 18. PMID: 32188696; PMCID: PMC7212623.
13. Knapke JM, **Haynes EN**, Vaughn LM. Improving Physician Research Training: Incorporating Student Feedback into Program Evaluation. *Studies in Graduate and Postdoctoral Education*. E-pub ahead of print March 9, 2020. <https://doi.org/10.1108/SGPE-03-2019-0036>
14. Yeramaneni S, Yolton K, Kannan K, Dietrich KN, **Haynes EN**. Serum Cotinine versus Parent Reported Measures of Secondhand Smoke Exposure in Rural Appalachian Children. *J Appalach Health*. 2019;1(1):15-26. doi: 10.13023/jah.0101.03. PubMed PMID: 31179444; PubMed Central PMCID: PMC6553863.
15. **Haynes EN**, Hilbert T, Sucharew H, Dietrich KN. Response to "Comment on 'Impact of air manganese on child neurodevelopment in East Liverpool, Ohio' by Haynes et al. (2018)". *Neurotoxicology*. 2018 Sep;68:149-150. doi: 10.1016/j.neuro.2018.07.016. Epub 2018 Aug 3. PubMed PMID: 30081052.
16. Percy Z, DeFranco E, Xu F, Hall ES, **Haynes EN**, Jones D, Muglia LJ, Chen A. Trimester specific PM2.5 exposure and fetal growth in Ohio, 2007-2010. *Environ Res*. 2019 Jan 15;171:111-118. doi: 10.1016/j.envres. 2019.01.031. [Epub ahead of print] [PMID: 30660917](https://pubmed.ncbi.nlm.nih.gov/30660917/)
17. Calvillo A, **Haynes E**, Burkle J, Schroeder K, Calvillo A, Reese J, Reponen T. Pilot study on the efficiency of water-only decontamination for firefighters' turnout gear. *J Occup Environ Hyg*. 2018 Nov 28;1-16. doi: 10.1080/15459624.2018. 1554287. PMID: 30485152
18. Ren S, **Haynes E**, Hall E, Hossain M, Chen A, Muglia L, Lu L, DeFranco E. Periconception Exposure to Air Pollution and Risk of Congenital Malformations. *J Pediatrics*. 2018; 193: 76-84. PMID: 29237538
19. Paulik, LB, Hobbie KA, Rohlman D, Smith BW, Scott RP, Kincl L, **Haynes EN**, and Anderson KA. Environmental and individual PAH exposures near rural natural gas extraction. *Environmental Pollution*. Online May 29, 2018. 241: 397–405.
20. Newman N, Elam S, Igoe C, Jones C, Menrath W, Porter D, **Haynes EN**. A Community-Academic Partnership to Reduce Lead Exposure from an Elevated Roadway Demolition, Cincinnati, Ohio, 2012. *Public Health Reports*. 132 (6): 622-626.
21. Zipkin FB, Falciglia GA, Kuhnell P, **Haynes EN**. Development and Evaluation of a Manganese and Iron Food Frequency Questionnaire for Pediatrics. *Int J Environ Res Public Health*. 2017; 14(9). PMID: 28906436.
22. **Haynes EN**, Sucharew H, Hilbert TJ, Kuhnell P, Spencer A, Newman NC, Burns R, Wright R, Parsons PJ,

Dietrich KN. Impact of air manganese on child neurodevelopment in East Liverpool, Ohio. *Neurotoxicology*. 2017; [Epub ahead of print]. PMID: 28888663. *NIEHS Paper of the Year 2017; Paper of the Month, October 2017*

23. Knapke JM, **Haynes EN**, Vaughn LM. Using Qualitative Methods to Improve Physician Research Training: Understanding the Student Perspective. *International Journal of Health Sciences Education*. 2017; 4(1):1-15.
24. Kang W, Rusinek C, Bange A, **Haynes E**, Heineman WR, Papautsky I. Determination of manganese by cathodic stripping voltammetry on a microfabricated platinum thin-film electrode. *Electroanalysis*. 2017 Mar;29(3):686-695. doi: 10.1002/elan.201600679. PubMed PMID: 28983182; PubMed Central PMCID: PMC5624726.
25. Kang W, Pei X, Rusinek CA, Bange A, **Haynes EN**, Heineman WR, Papautsky I. Determination of Lead with a Copper-Based Electrochemical Sensor. *Anal Chem*. 2017; 89(6):3345-3352. PMID: 28256823.
26. Fulk F, Succop P, Hilbert TJ, Beidler C, Brown D, Reponen T, **Haynes EN**. Pathways of inhalation exposure to manganese in children living near a ferromanganese refinery: A structural equation modeling approach. *Sci Total Environ*. 2017; 579:768-775. PMID: 27865527.
27. Knapke J, **Haynes E**, Breen J, Kuhnell P, Smith L, Meinzen-Derr J. Evaluation of Online Graduate Epidemiology Instruction and Student Outcomes. *Online Learning*. 2016; 20(4):201-211.
28. Vollet K, **Haynes EN**, Dietrich KN. Manganese Exposure and Cognition Across the Lifespan: Contemporary Review and Argument for Biphasic Dose-Response Health Effects. *Curr Environ Health Rep*. 2016; 3(4):392-404. PMID: 27722879.
29. Fulk F, **Haynes EN**, Hilbert TJ, Brown D, Peterson D, Reponen T. Comparison of stationary and personal air sampling with an air dispersion model for children's ambient exposure to manganese. *J Expo Sci Environ Epidemiol*. 2016; 26(5):494-502. PMID: 27168393.
30. Paulik LB, Donald CE, Smith BW, Tidwell LG, Hobbie KA, Kincl L, **Haynes EN**, Anderson KA. Emissions of Polycyclic Aromatic Hydrocarbons from Natural Gas Extraction into Air. *Environ Sci Technol*. 2016; 50(14):7921-9. PMID: 27400263.
31. **Haynes EN**, Elam S, Burns R, Spencer A, Yancey E, Kuhnell P, Alden J, Walton M, Reynolds V, Newman N, Wright RO, Parsons PJ, Praamsma ML, Palmer CD, Dietrich KN. Community Engagement and Data Disclosure in Environmental Health Research. *Environ Health Perspect*. 2016; 124(2):A24-7. PMID: 26829152.
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33. Poe S, Vandivier-Pletsch RH, Clay M, Wong HR, **Haynes E**, Rothenberg FG. Cardiac Troponin Measurement in the Critically Ill: Potential for Guiding Clinical Management. *J Investig Med*. 2015; 63(8):905-15. PMID: 26425879.
34. **Haynes EN**, Sucharew H, Kuhnell P, Alden J, Barnas M, Wright RO, Parsons PJ, Aldous KM, Praamsma ML, Beidler C, Dietrich KN. Manganese Exposure and Neurocognitive Outcomes in Rural School-Age Children: The Communities Actively Researching Exposure Study (Ohio, USA). *Environ Health Perspect*. 2015; 123(10):1066-71. PMID: 25902278.

35. Rohlman D, Syron L, Hobbie K, Anderson KA, Scaffidi C, Sudakin D, Peterson ES, Waters KM, **Haynes E**, Arkin L, Feezel P, Kincl L. A Community-Based Approach to Developing a Mobile Device for Measuring Ambient Air Exposure, Location, and Respiratory Health. *Environmental Justice*. 2015; 8(4):126-134.
36. Yeramneni S, Dietrich KN, Yolton K, Parsons PJ, Aldous KM, **Haynes EN**. Secondhand Tobacco Smoke Exposure and Neuromotor Function in Rural Children. *J Pediatr*. 2015; 167(2):253-9. PMID: 25882879.
37. Knapke JM, **Haynes EN**, Kuhnell P, Tsevat J. NIH grant awards as a metric of clinical and translational research training effectiveness. *Clin Transl Sci*. 2015; 8(1):52-6. PMID: 25377275.
38. DeFranco E, Hall E, Hossain M, Chen A, **Haynes EN**, Jones D, Ren S, Lu L, Muglia L. Air pollution and stillbirth risk: exposure to airborne particulate matter during pregnancy is associated with fetal death. *PLoS One*. 2015; 10(3):e0120594. PMID: 25794052.
39. Kang W, Pei X, Bange A, **Haynes EN**, Heineman W, Papautsky I. Copper-based electrochemical sensor with palladium electrode for cathodic stripping voltammetry of manganese. *Anal Chem*. 2014; 86(24):12070-7. PMID: 25476591.
40. Parin ML, Yancey E, Beidler C, **Haynes EN**. Efficacy of Environmental Health E-training for Journalists. *Stud Media Commun*. 2014; 2(1):71-80. PMID: 26998499.
41. Korfmacher KS, Elam S, Gray KM, **Haynes E**, Hughes MH. Unconventional natural gas development and public health: toward a community-informed research agenda. *Rev Environ Health*. 2014; 29(4):293-306. PMID: 25204212.
42. Baxter CS, Hoffman JD, Knipp MJ, Reponen T, **Haynes EN**. Exposure of firefighters to particulates and polycyclic aromatic hydrocarbons. *J Occup Environ Hyg*. 2014; 11(7):D85-91. PMID: 24512044.
43. Rugless F, Bhattacharya A, Succop P, Dietrich KN, Cox C, Alden J, Kuhnell P, Barnas M, Wright R, Parsons PJ, Praamsma ML, Palmer CD, Beidler C, Wittberg R, **Haynes EN\***. Childhood exposure to manganese and postural instability in children living near a ferromanganese refinery in Southeastern Ohio. *Neurotoxicol Teratol*. 2014; 41:71-9. PMID: 24370548.
44. Knapke JM, Tsevat J, Succop PA, Djawe K, Kuhnell P, **Haynes EN**. Publication track records as a metric of clinical research training effectiveness. *Clin Transl Sci*. 2013; 6(6):458-62. PMID: 24330690.
45. Fullencamp AN, **Haynes EN\***, Meloncon L, Succop P, Nebert DW. Perceptions of genetic research in three rural Appalachian Ohio communities. *J Community Genet*. 2013; 4(1):9-17. PMID: 22865241.
46. Lee LS, Pusek SN, McCormack WT, Helitzer DL, Martina CA, Dozier AM, Ahluwalia JS, Schwartz LS, McManus LM, Reynolds BD, **Haynes EN**, Rubio DM. Clinical and translational scientist career success: metrics for evaluation. *Clin Transl Sci*. 2012; 5(5):400-7. PMID: 23067352.
47. Ouyang B, Baxter CS, Lam HM, Yeramneni S, Levin L, **Haynes E**, Ho SM. Hyomethylation of dual specificity phosphatase 22 promoter correlates with duration of service in firefighters and is inducible by low-dose benzo[a]pyrene. *J Occup Environ Med*. 2012; 54(7):774-80. PMID: 22796920.
48. **Haynes EN\***, Ryan P, Chen A, Brown D, Roda S, Kuhnell P, Wittberg D, Terrell M, Reponen T. Assessment of personal exposure to manganese in children living near a ferromanganese refinery. *Sci Total Environ*. 2012; 427-428:19-25. PMID: 22551936.
49. Sahay RD, **Haynes EN**, Rao MB, Pirko I. Assessment of Sexual Satisfaction in Relation to Potential Sexual Problems in Women with Multiple Sclerosis: A Pilot Study. *Sex Disabil*. 2012; 30(2):227-36.



50. **Haynes EN\***, Chen A, Ryan P, Succop P, Wright J, Dietrich KN. Exposure to airborne metals and particulate matter and risk for youth adjudicated for criminal activity. *Environ Res.* 2011; 111(8):1243-8. PMID: 21864838.
51. **Haynes EN\***, Beidler C, Wittberg R, Meloncon L, Parin M, Kopras EJ, Succop P, Dietrich KN. Developing a bidirectional academic-community partnership with an Appalachian-American community for environmental health research and risk communication. *Environ Health Perspect.* 2011; 119(10):1364-72. PMID: 21680278.
52. Jothimuthu P, Wilson RA, Herren J, **Haynes EN**, Heineman WR, Papautsky I. Lab-on-a-chip sensor for detection of highly electronegative heavy metals by anodic stripping voltammetry. *Biomed Microdevices.* 2011; 13(4):695-703. PMID: 21479538.
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*Recipient of the Frank R. Smith Distinguished Article in Technical Communication Award and Cover Page of Technical Communication.*  
*Nominated for the National Council of Teachers Technical and Scientific Communication Best Article (years 2010-2011) in Empirical Research.*
54. **Haynes EN\***, Heckel P, Ryan P, Roda S, Leung YK, Sebastian K, Succop P. Environmental manganese exposure in residents living near a ferromanganese refinery in Southeast Ohio: a pilot study. *Neurotoxicology.* 2010; 31(5):468-74. PMID: 19879291.
55. Brubaker CJ, Schmithorst VJ, **Haynes EN**, Dietrich KN, Egelhoff JC, Lindquist DM, Lanphear BP, Cecil KM. Altered myelination and axonal integrity in adults with childhood lead exposure: a diffusion tensor imaging study. *Neurotoxicology.* 2009; 30(6):867-75. PMID: 19619581.
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## BOOK/ENCYCLOPEDIA CHAPTERS

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1. **Haynes, EN**, McKenzie LM, Malin SA, Cherrie JW, Miller A. Onshore unconventional oil and gas extraction and implications for public health. Invited Oxford University Press Encyclopedia. Accepted June 2017.
2. Langevin S and Haynes, EN. "Manganese in Health and Disease." Eds. Aschner M & Costa LG. *Developmental Effects of Manganese*. **Invited book chapter**. The Royal Society of Chemistry. 2015.
3. Haynes, EN. Community-Based Participatory Research: An Overview for Application in DoD/VA Research. **Invited** book chapter for Airborne Hazards, US Army Borden Institute. May 21, 2015.  
<http://www.cs.amedd.army.mil/borden/Portlet.aspx?id=0d4977be-d91a-41c3-8580-c29fdb6f257>
4. Musaad S, Haynes E. *Obesity*. In: Rothman N, Hainaut P, Schulte P, Smith M, Boffetta P, Perera F. Molecular epidemiology: principles and practices. Lyon: IARC Scientific Publication No 163. March 2012.

## AWARDS AND HONORS

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2021	Executive Leadership in Academic Medicine (ELAM) recipient
2020	Delta Omega Honor Society in Public Health Inductee
2019	NIOSH Bullard-Sherwood Research to Practice (r2p) Award
2018	Founders Award, College of Medicine, University of Cincinnati
2017	NIEHS Paper of the Year Award
2017	NIEHS Paper of the Month, October
2017	Ohio School Board Association, Business Community Award
2013	Association of American Medical Colleges Mid-Career Women Faculty Professional Development Seminar awardee
2013	Academic-Community Research Partnership Award for service related to my collaborative approach to the Health Impact Assessment for the 6 <sup>th</sup> Street Viaduct Demolition.

## MEMBERSHIPS IN PROFESSIONAL ORGANIZATIONS

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Member, International Society of Exposure Science
<ul style="list-style-type: none"> <li>• Co-Chair 2021 Annual Meeting</li> <li>• Academic Councilor, 2016-2019</li> <li>• Technical Organizing Committee, 2014-2021</li> </ul>
Member, International Society of Environmental Epidemiology
Member, Society for Epidemiologic Research
Member, American Public Health Association
Member, American Geophysical Union
Member, American Scientific Association

## SERVICE

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### National/International Agencies

Member	Board of Scientific Counselors, National Toxicology Program (2023-present)
Member	National Academies of Sciences Committee on the Guidance for PFAS Testing and Health Outcomes (2020-2022)
Co-Chair	International Society of Exposure Science (ISES) 2021 Annual Meeting
Sr Associate Editor	Journal of Appalachian Health (2019-present)
Co-chair	National Institute of Environmental Health Sciences (NIEHS) Disaster Response Research (DR2) Network Committee (2019-present)
Member	National Institute of Occupational Health (NIOSH), Emergency Preparedness and Response (EPR) Program Review Panel, Atlanta, GA (2018)
Member	International Society of Exposure Science (ISES) General Scientific Meeting Committee, 2019-

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2022

- Member National Occupational Research Agenda (NORA), Manufacturing Sector Program, Office of Policy, Planning and Evaluation, National Institute for Occupational Safety and Health (2017-2020)
- Academic Counselor (elected) International Society of Exposure Science (2017-2020)
- Member Ethics and Philosophy Committee, International Society of Environmental Epidemiology, 2015-2017
- Chair Technology Fair, Technical Organizing Committee, International Society of Exposure Science Conference, 2014-2018
- Chair Appalachian Translational Research Network, 2018
- Member International Advisory Committee for the *Second International Conference on the Neurotoxicity and Prevention of Manganese Adverse Health Effects*, 2016
- Participant Health Effects Institute (HEI), Potential Impacts of Unconventional Oil and Gas Development in the Appalachian Basin, Public Workshop, 2014
- Member National Institute of Environmental Health Sciences (NIEHS) Environmental Health Centers, Hydraulic Fracturing Working Group, 2013-2016
- Member Education and Research Training Key Function Committee (KFC), Clinical and Translational Science Award, 2011-2018
- Participant National Institute of Environmental Health Sciences Risk Communication Workshop, 2010
- Member Planning Committee (2010), National Institute of Environmental Health Sciences, Inaugural Partnerships for Environmental Public Health Research Triangle Park, NC
- Member Evaluation Committee, Association for Clinical Research Training (ACRT). Bethesda, MD, 2006-2010

#### **Service Activities: University of Kentucky Academic Years**

- Member Health Behavior and Society Department Self Study Review Panel, UK College of Public Health (2022)
- Member Environmental Medicine Department Review Panel, Mt. Sinai Medical School, NY (2022)
- Member Pharmacology and Nutritional Sciences Department Self Study Review Panel, UK College of Medicine (2021)
- Review Internal pilots submitted to UKCARES and UNITE (2019-present)
- Organizer John P. Wyatt, MD Environment and Health Symposium (2021-present)
- Member Search Committee, Director of Kentucky Geological Survey
- Member President's Sustainability Council (2021-present)
- Member CPH Leadership Committee, College of Public Health (2019-present)
- Chair Search Committee, Chair of Department of Preventive Medicine and Environmental Health, College of Public Health (2020)
- Member External Advisory Board, Molecular Epidemiology in Children's Environmental Health (2020-present)

#### **Service Activities: University of Cincinnati Academic Years**

- Member Reappointment, Promotion, Tenure Committee, Department of Family and Community Medicine (2016-2018)
- President Women in Medicine and Science (WIMS) (2015-2018)
- Member LEAF Academic Accountability Committee (2015-2017)
- Member, Program Committee, Center for Closing the Health Gap (2013-2018)
- Commissioner EPA-Appointed, Hamilton County Environmental Action Commission (HCEAC) (2012-2018)
- Chair Hamilton County Environmental Action Commission (HCEAC) (2016)
- Organizer Symposium for the Ohio-Kentucky-Indiana (OKI) Regional Council of Government's Regional Impact of Traffic Exhaust on Children's Health Symposium (2012).
- Member Fernald Community Advisory Committee (2012-2017)
- Member Search committee for Director of Clinical Studies in Occupational and Ambient Environments Search Committee (2009-2012)

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Member Epidemiology Faculty Search Committee (2012)

Member Center for Clinical and Translational Science and Training, Steering Committee, Cincinnati, OH (2010-2018)

Member Internal Advisory Board, NIEHS EHS Core Center 'Center for Environmental Genetics,' (2012-2013)

Member Internal Advisory Board, Molecular Epidemiology in Children's Environmental Health (2012-2018)

Chair Curriculum Committee, Master of Science in Clinical and Translational Research (2010-2018)

## Grant Review Panels

1. NIH, NIEHS Environmental Health Study Section – Standing Committee Member (2017-2022)
2. NIH, NIEHS Collaborative Centers in Children's Environmental Health (2021)
3. NIH, NIEHS, Sensor Validation (2021)
4. NIH, NIEHS, Outstanding New Environmental Health Scientist (2014- 2021)
5. NIH, R24, Cohort Maintenance Review Meeting. 2017, 2018
6. NIH, Infectious, Reproductive, Asthma and Pulmonary Conditions Study Section, Nov 2016
7. NIH, Children's Health Exposure Analysis Resources (CHEAR) Review, June 2015
8. NIEHS, Superfund Basic Science Research Center (2013, 2021)
9. CDC, Education and Research Center Pilot Project Program (2011-2013)
10. NIH, Office of the National Coordinator for Health Information Technology (ONC), and Environmental Protection Agency (EPA) Grant Review: My Air My Health Challenge (2012-present).
11. NIEHS, ZES1-LKB-K (R2), Research Careers in Emerging Technologies (2013).
12. NIH, ZES1 SET-J K9 1, Career Grants in the Environmental Health Sciences (11/2012).
13. Breast Cancer Registry of Greater Cincinnati grant program (2011).
14. Conferences on Environmental Diseases 2011/2012 Council ZES1TN-J K 1, Teresa Nesbitt, SRO (11/2011).
15. NIEHS, Environmental Health Science Centers (2009; 2010).

## Manuscript Review

Serve as an *ad hoc* reviewer for the following scientific journals:

1. Journal of Appalachian Health
2. BioEssays, impact factor: 4.08
3. Environmental Health Perspectives, Impact factor: 7.26
4. Environmental Research, Impact factor: 3.85
5. Journal of Occupational and Environmental Medicine, Impact factor: 1.84
6. Environmental Science and Technology, Impact factor: 5.257
7. Journal of Exposure Science and Environmental Epidemiology: 3.187

## COURSES

2020  
2010-2018

MPH Capstone for Epidemiology and Environmental Health, UK CPH

Co-Director Design and Management of Field Studies in Epidemiology, 3 credit Graduate course, Division of Epidemiology, Department of Environmental Health, University of Cincinnati ~25 students per year

- The course teaches students to synthesize their research ideas into a hypothesis, specific aims, research design, methods for collecting and analyzing data, recruitment strategies, tips on maintaining a longitudinal cohort, and the grant review process. Students prepare an R21 grant submission during the 10-week course.
- Required course for all MS and PhD students in the Division of Epidemiology and Biostatistics

- The class received a “T” designation, as it is transdisciplinary through a University of Cincinnati (UC) Forward grant, entitled “Innovations in Science Communications” for years 2012-present.
- Student evaluations: Average 4.8/5 in 2017

2018	<u>Communicating Your Science</u> , 2 credit Graduate course, Division of Epidemiology, Department of Environmental Health, University of Cincinnati ~12 students – built and offered this course for University.
2012-2018	<u>Successful Scientific Writing</u> , 1 credit online Graduate course, Division of Epidemiology, Department of Environmental Health, University of Cincinnati ~30 students/year
2005-2010	<u>Molecular Epidemiology</u> , 3 credit Graduate course, Division of Epidemiology and Biostatistics, Department of Environmental Health, University of Cincinnati ~35 students/year
2003	<u>Community Exposure Assessment</u> , Graduate course, Division of Epidemiology and Biostatistics, Department of Environmental Health, University of Cincinnati
2001-2002	<u>Environmental Science I and II</u> , Undergraduate course, Chatfield College, Ohio
1997-1998	<u>Biology Laboratory</u> , Undergraduate course, UC Clermont