

CURRICULUM VITAE
JUNE T. SPECTOR, M.D., M.P.H.

Biographical Information

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Education and Professional Training

- 1997-2001 Harvard College, Cambridge, MA
A.B., Chemistry, *Magna cum laude*
- 2001-2005 Yale School of Medicine, New Haven, CT
M.D., *Cum laude*
- 2005-2008 Hospital of the University of Pennsylvania, Philadelphia, PA
Intern & Resident, Internal Medicine
- 2008-2009 Johns Hopkins School of Public Health, Baltimore, MD
M.P.H., Concentration in Epidemiologic & Biostatistical Methods for Public Health & Clinical Research
- 2008-2009 Johns Hopkins School of Public Health, Baltimore, MD
Fellow, Occupational & Environmental Medicine
- 2009-2010 University of Washington, Seattle, WA
Senior Fellow, Occupational & Environmental Medicine
- 2010-2011 University of Washington, Seattle, WA
Postdoctoral Fellow, Biostatistics, Epidemiologic, and Bioinformatic Training for Environmental Health (BEBTEH)

Licensure and Certification

Medical License

2009-2026 Washington

Board Certification

- 2008, 2018 American Board of Internal Medicine (passed ABIM Knowledge Check 2018, active LKA participant)
- 2011, 2019 American Board of Preventive Medicine (through 12/31/30)

Professional Experience

- 2012-2017 Assistant Professor, Departments of Environmental and Occupational Health Sciences & Medicine,
University of Washington, Seattle, WA
- 2017-2019 Associate Professor, Departments of Environmental and Occupational Health Sciences & Medicine
University of Washington, Seattle, WA
- 2019-2023 Associate Professor (with tenure), Departments of Environmental and Occupational Health Sciences & Medicine
University of Washington, Seattle, WA
- 2021-2023 Adjunct Associate Professor, Department of Global Health,
University of Washington, Seattle, WA
- 2022-Present Occupational Research Physician & Occupation Disease Program Lead, Washington State Department of Labor and Industries Safety & Health Assessment & Research for Prevention (SHARP) Program

2024-Present	Research Associate Professor, Department of Environmental and Occupational Health Sciences
2024-Present	Adjunct Research Associate Professor, Department of Medicine, Division of General internal Medicine
2011-2012	Interim Clinic Director Occupational & Environmental Medicine Clinic University of Washington, Seattle, WA
2010-2012	Acting Instructor, Department of Medicine University of Washington, Seattle, WA
2011-2017	Assistant Program Director Occupational & Environmental Medicine Training Program University of Washington, Seattle, WA
2011-2012	Program Director Harborview Center of Occupational Health and Education (COHE) University of Washington, Seattle, WA
2014-Present	Affiliate Member, University of Washington Climate Impacts Group
2015-2022	Core Investigator, University of Washington Center for Ecogenetics and Environmental Health
2017-2022	Participating Faculty, University of Washington, NIEHS Environmental Pathology/Toxicology Training Program (EP/T) (PI Rosenfeld)
2016-2018	Interim Director, Occupational and Environmental Medicine University of Washington, Seattle, WA
2018-2022	Director, Occupational and Environmental Medicine University of Washington, Seattle, WA
2018	Interim Medical Director, University of Washington Harborview Center of Occupational Health and Education (COHE)
2018	Interim Occupational Medicine Physician Consultant, University of Washington Environmental Health and Safety Department
2018-Present	Program Faculty, University of Washington Biostatistics, Epidemiologic, and Bioinformatic Training for Environmental Health (BEBTEH) NIEHS T32 Training Grant (PI Sheppard)
2018-2022	Assistant Chair (for Occupational Medicine Partnerships), Department of Environmental and Occupational Health Sciences University of Washington, Seattle, WA
2020-2022	University of Washington Center for Health and the Global Environment (CHanGE), Member
2020-2022	Deputy Director, Northwest Center for Occupational Health and Safety (NWCOHS) University of Washington, Seattle, WA

Honors, Awards, and Scholarships

2001	<i>Magna cum laude</i> , Harvard College
2001	Harvard College Scholarship <i>for academic excellence</i>
2001	Elizabeth Cary Agassiz Scholarship <i>for academic excellence</i>
2002	Endocrine Society Summer Research Fellowship
2005	<i>Cum laude</i> , Yale School of Medicine
2005	Farr Scholar Award <i>for superior performance as a medical student</i>
2005	Janet M. Glasgow Memorial Award <i>for outstanding women</i>
2006	American Society of Nephrology Resident Travel Grant

2007	Housestaff Quality Improvement Project Award, Hospital of the University of Pennsylvania
2008-2009	Occupational Physicians Scholarship Fund Award, American College of Occupational and Environmental Medicine
2009	E. Randall Bass Award (annual occupational medicine resident/fellow award), Johns Hopkins School of Public Health
2009	Delta Omega Honorary Public Health Society, Alpha Chapter, Johns Hopkins School of Public Health
2009	Student Research/Scholarly Project Forum Winner, Northwest Center for Occupational Health and Safety
2017	Department of Environmental and Occupational Health Sciences Outstanding Faculty Mentor Award
2019	Nominee for UW Medicine Award for Excellence in Mentoring Women Faculty

Professional Activities (academic)

Editorial responsibilities

2015-2020	Associate Editor, Journal of Agromedicine
2021-2023	Guest Editor, International Journal of Environmental Research and Public Health, special issue: <i>Prevention of Adverse Health Outcomes Related to Heat Exposure in Working Populations</i>

Ad hoc reviewer

American Journal of Medicine
 American Journal of Industrial Medicine
 Annals of Occupational Hygiene
 AJPH
 Applied Ergonomics
 Atmosphere
 Health Sciences Reports
 International Journal of Biometeorology
 JAMA Network Open
 Journal of Occupational & Environmental Health
 Journal of Occupational & Environmental Medicine
 Journal of Remote Sensing
 Musicae Scientiae
 Occupational & Environmental Medicine
 Plos One
 Science of the Total Environment

Bibliography

a. Refereed Research Articles

1. **Spector J**, Tampi R. Caregiver depression. *Annals of Long-Term Care* 2005;13(4):34-40.
2. **Spector JT**, Brandfonbrener A. A new method for quantification of musician's dystonia: The frequency of abnormal movements scale. *Medical Problems of Performing Artists* 2005;20:157-62.
3. Liu Z, Greco AJ, Hellman NE, **Spector J**, Robinson J, Tang OT, Lipschutz JH. Intracellular signaling via MAPK/ERK completes the pathway for tubulogenic fibronectin in MDCK cells. *Biochemical and Biophysical Research Communications* 2007;353(3):793-98. PMC1839983.
4. **Spector JT**, Brandfonbrener A. Methods of evaluation of musician's dystonia: Critique of measurement tools. *Movement Disorders* 2007;22(3):309-12. PMID 17216638.

5. Hellman NE, **Spector J**, Robinson J, Liu Z, Tobias JW, Lipschutz JH. Matrix metalloproteinase 13 and tissue inhibitor of matrix metalloproteinase 1, regulated by the MAPK pathway, are both necessary for MDCK tubulogenesis. *Journal of Biological Chemistry* 2008;283(7):4272-4282. PMID 1803967.
6. **Spector J**, Kahn S, Jones M, Jayakumar M, Dalal D, Nazarian S. Migraine headache and ischemic stroke risk: An updated meta-analysis. *American Journal of Medicine* 2010;123(7):612-24. PMC2900472.
7. Enders L, **Spector JT**, Altenmüller E, Schmidt A, Klein C, Jabusch H-C. Musician's dystonia and comorbid anxiety: two sides of one coin? *Movement Disorders* 2011;26(3):539-42. PMID 21370273.
8. **Spector JT**, Adams D, Silverstein B. Burden of work-related knee disorders in Washington State, 1999-2007. *Journal of Occupational and Environmental Medicine* 2011;53(5):537-47. PMID 21508866.
9. **Spector J**, Navas-Acien A, Fadrowski J, Guallar E, Jaar B, Weaver V. Associations of blood lead with estimated glomerular filtration rate using MDRD, CKD-EPI and serum cystatin C-based equations. *Nephrology Dialysis Transplantation* 2011;26:2786-2792. PMID 21248295.
10. Weaver VM, Kim N-S, Lee B-K, Parsons PJ, **Spector JT**, Fadrowski J, Jaar BG, Steuerwald AJ, Todd AC, Simon D, Schwartz BS. Differences in urine cadmium associations with kidney outcomes based on serum creatinine and cystatin C. *Environmental Research* 2011;111:1236-1242. PMID 21871619.
11. **Spector JT**, Turner JA, Fulton-Kehoe D, Franklin GM. Pre-surgery disability compensation predicts long-term disability among workers with carpal tunnel syndrome. *American Journal of Industrial Medicine* 2012;55(9):816-32. PMID 22392804.
12. Anderson NJ, Bonauto DK, Fan JZ, **Spector JT**. Distribution of Influenza-Like Illness by Occupation in Washington State, September 2009-August 2010. *PLOS ONE* 2012;7(11):e48806.
13. Doorenbos AZ, Gordon DB, Tauben D, Palisoc J, Drangsholt M, Lindhorst T, Danielson J, **Spector J**, Ballweg R, Vorvick L, Loeser JD. A Blueprint of Pain Curriculum across Prelicensure Health Sciences Programs: One NIH Pain Consortium Center of Excellence in Pain Education (CoEPE) Experience. *The Journal of Pain* 2013;S1526-5900(13):01126-7.
14. *Lam M, Krenz J, Perla M, Negrete M, Palmandez P, **Spector JT**. Identification of barriers to the prevention and treatment of heat-related illness in Latino farmworkers using activity-oriented, participatory rural appraisal focus group methods. *BMC Public Health* 2013(13):1004.
*Primary advisor of first author student
15. **Spector JT**, De Roos AJ, Ulrich CM, Sheppard L, Sjodin A, Wener MH, Wood B, McTiernan A. Plasma polychlorinated biphenyl concentrations and immune function in postmenopausal women. *Environmental Research* 2014;131C:174-180.
16. **Spector JT**, Lieblich M, Bao S, McQuade K, Hughes M. Automation of workplace lifting hazard assessment for musculoskeletal injury prevention. *Annals of Occupational & Environmental Medicine* 2014; 26:15. PMID: 24987523.
17. **Spector JT**, Krenz J, Rauser E, Bonauto DK. Heat-related illness in Washington State agriculture and forestry. *American Journal of Industrial Medicine* 2014;57(8):881-95. PMID: 24953344.
18. **Spector JT**, Yong R, Altenmueller E, Jabusch H-C. Biographic and behavioral factors are associated with music-related motor skills in children pianists. *Human Movement Science* 2014;37:157-66. PMID: 25215624.
19. **Spector JT**, Sheffield PE. Re-evaluating occupational heat stress in a changing climate. *Annals of Occupational Hygiene* 2014;58(8):936-42. PMID: 25261455.
20. **Spector JT**, Krenz J, Blank KN. Risk factors for heat-related illness in Washington crop workers. *J Agromedicine* 2015;20(3):349-59. PMID: 26237726.

21. **Spector JT**, Bonauto DK, Sheppard L, Busch-Isaksen T, Calkins M, Adams D, Lieblich M, Fenske RA. A case-crossover study of heat exposure and injury risk in outdoor agricultural workers. *PLOS ONE* 2016;11(10):e0164498. PMID: 27716794. PMCID: PMC5055365.
22. **Spector JT**, Lieblich MD. Letter regarding 'Comparison between low-cost marker-less and high-end marker-based motion capture systems for the computer-aided assessment of working ergonomics' by Patrizi et al and research reproducibility. *Ergonomics* 2017;60(4):597-598. PMID: 26715142.
23. **Spector JT**, Reul NK. Promoting early, safe return to work in injured employees: A randomized trial of a supervisor training intervention in a healthcare setting. *J Occup Rehabil* 2017;27(1):70-81. PMID: 26883129.
24. *Quiller G, Krenz J, Ebi K, Hess J, Fenske R, Sampson P, Pan M, **Spector JT**. Heat exposure and productivity in orchards: Implications for climate change research. *Arch Environ Occup Health* 2017;72(6):313-316. PMID: 28139172.
*Primary advisor of first author student
25. Kuras ER, Richardson MB, Calkins MM, Ebi KL, Hess JJ, Kintziger KW, Jagger MA, Middel A, Scott AA, **Spector JT**, Uejio CK, Vanos JK, Zaitchik BF, Gohlke JM, Hondula DM. Opportunities and challenges for personal heat exposure research. *Environ Health Perspect* 2017;125(8):085001.
26. Bethel J, **Spector J**, Krenz J. Hydration and cooling practices among farmworkers in Oregon and Washington. *J Agromedicine* 2017; 22(3):222-228.
27. **Spector JT**, Krenz J, Calkins M, Ryan D, Carmona J, Pan M, Zemke A, Sampson PD. Associations between heat exposure, vigilance, and balance performance in summer tree fruit harvesters. *Appl Ergon* 2018;67:108.
28. Nkyekyer EN, Fulton-Kehoe D, **Spector JT**, Franklin G. Opioid and benzodiazepine use before injury among workers in Washington State, 2012 – 2015. *JOEM* 2018;60(9):820-826.
29. Masuda Y, Game E, Krenz J, Wolff N, Castro B, Garg T, Anggraeni I, Ebi K, **Spector J**. How are healthy, working populations affected by increasing temperatures in the tropics? Implications for climate change adaptation policies. *Global Environmental Change* 2019;56:29-40.
30. *Calkins M, Bonauto D, Hajat A, Lieblich M, Seixas N, Sheppard L, **Spector J**. Heat exposure and injury risk in Washington State outdoor construction workers: A case-crossover study using high resolution meteorological data and workers' compensation injury claims. *Scandinavian Journal of Work, Environment and Health* 2019;45(6):588-599.
*Primary advisor of first author student
31. *Suter MK, Miller KA, Anggraeni I, Ebi KL, Game ET, Krenz J, Masuda YJ, Sheppard L, Wolff NH, **Spector JT**. Association between work in deforested, compared to forested, areas and human heat strain: An experimental study in a rural tropical environment. *Environmental Research Letters* 2019;14(8):084012. PMC6724538.
*Primary advisor of first author student
32. **Spector JT**, Masuda YJ, Wolff NH, Calkins M, Seixas N. Heat exposure and occupational injuries: Review of the literature and implications. *Current Environmental Health Reports (invited review)* 2019;6(4):286-296. <https://doi.org/10.1007/s40572-019-00250-8>. PMID: 31520291.
33. Tigchelaar M, Battisti DS, **Spector JT**. Growing heat risk for US agricultural workers requires strong adaptation measures. *Environmental Research Letters* 2020;15:094035.
34. Austin E, Kasner E, Seto E, **Spector JT**. Combined burden of heat and air quality during wildfire season in Washington agriculture. *J Agromed (special issue)* 2020;Jul 30:1-10.
35. Zeppetello LR, Parsons LA, **Spector JT**, Naylor RL, Battisti DS, Masuda YJ, Wolff NH. Large scale tropical deforestation drives extreme warming. *Environmental Research Letters* 2020;15:084012. <https://doi.org/10.1088/1748-9326/ab96d2>.

36. Masuda YJ, Anggraeni I, Garg T, **Spector JT**, Wolff NH, Ebi K, Game ET, Krenz J, Yen L. The effect of heat exposure from tropical deforestation on cognitive performance: An experimental study. *Environmental Research Letters* 2020; 15:124015.
37. *Pierson B, Faestel P, **Spector JT**, Johnson P. Preliminary comparison of vibration measurement accuracy between a low cost, portable acceleration measurement unit and a gold-standard accelerometer system. *Applied Ergonomics* 2021. Available online. <https://doi.org/10.1016/j.apergo.2020.103268>.
*Primary co-advisor of first author student
38. Ebi KL, Baldwin J, Bell JE, Hondula D, Errett NA, Hayes K, Reid C, Saha S, **Spector J**, Vanos J, Berry P. Extreme weather and climate change: population health and health system implications. *Annual Reviews in Public Health* 2021. Available online. doi: 10.1146/annurev-publhealth-012420-105026. PMID: 33406378.
39. Masuda YJ, Garg T, Aggraeni I, Ebi K, Krenz J, Game ET, Wolff NH, **Spector JT**. Warming from tropical deforestation reduces worker productivity in rural communities. *Nature Communications* 2021;12(1):1601. doi: [10.1038/s41467-021-21779-z](https://doi.org/10.1038/s41467-021-21779-z).
40. Kim K, Jung J, Schollaert C, **Spector JT**. A comparative assessment of cooling center service coverage and access disparities across twenty-five US cities. *Int J Environ Res Public Health* 2021;18(9):4801. <https://doi.org/10.3390/ijerph18094801>.
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42. Krenz J, Chavez Santos E, Torres E, Palmandez P, Carmona J, Blancas M, Marquez D, Sampson P, **Spector JT**. Multi-level heat education and awareness intervention study for farmworkers. *Contemporary Clinical Trials Communications* 2021; 22:100795. <https://doi.org/10.1016/j.conctc.2021.100795>.
43. Bettles J, Battisti DS, Cook-Patton SC, Kroeger T, **Spector JT**, Wolff NH, Masuda YJ. Accelerating agroforestry adoption among smallholder farmers via non-state actors. *Forest Policy and Economics* 2021; 130. <https://doi.org/10.1016/j.forpol.2021.102538>.
<https://www.sciencedirect.com/science/article/pii/S1389934121001441>.
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45. Jung J, Uejio CK, Adeyeye TE, Kintziger KW, Duclos C, Reid K, Jordan M, **Spector JT**, Insaf TZ. Using social security number to identify sub-populations vulnerable to the health impacts from extreme heat in Florida, US. *Environmental Research* 2021; 202:111738. doi: 10.1016/j.envres.2021.111738.
46. Wolff NH, Zeppetello LR, Parsons LA, Anggraeni I, Battisti D, Ebi KL, Game ET, Kroeger T, Masuda YJ, **Spector JT**. The effect of deforestation and climate change on all-cause mortality and unsafe work conditions due to heat exposure in Indonesia: A spatial analysis. *Lancet Planetary Health* 2021;5(12):e882-e892.
47. Jung J, Uejio CK, Kintziger KW, Duclos C, Reid K, Jordan M, **Spector JT**. Heat illness data strengthens vulnerability maps. *BMC Public Health* 2021;21(1999).
48. Parsons LA, Shindell D, Tigchelaar M, Zhang Y, **Spector JT**. Increased labor losses and decreased adaptation potential in a warmer world. *Nature Communications* 2021;12:7286.

49. Parsons LA, Jung J, Kroeger T, Masuda YJ, Zeppetello LRV, Wolff NH, Battisti DS, **Spector JT**. Tropical deforestation already outpacing climate change heat impacts, limiting human ability to safely work outside. *One Earth* 2021; 4, 1730–1740.
50. Zuidema C, Austin E, Cohen MA, Kasner E, Liu L, Busch-Isaksen T, **Spector J**, Seto E. Exposure to wildfire smoke and particulate matter among Washington State construction workers; potential impacts and implications for worker protection. *Annals of Work Exposure and Health* 2022; 66(4): 419-432. <https://doi.org/10.1093/annweh/wxab115>
51. Parsons LA, Masuda YJ, Shindell D, Kroeger T, Wolff NH, **Spector JT**. Global labor loss due to humid heat exposure underestimated for outdoor workers. *Environmental Research Letters* 2022;17:014050. <https://iopscience.iop.org/article/10.1088/1748-9326/ac3dae>
52. Zeppetello LV, Cook-Patton SC, Parsons LA, Wolff NH, Kroeger T, Battisti DS, Bettles J, **Spector JT**, Balakumar JT, Masuda YJ. Consistent cooling benefits of silvopasture in the tropics. *Nature Communications* 2021. 13(1):708. <https://www.nature.com/articles/s41467-022-28388-4>
53. *Egbert J, Krenz J, Sampson PD, Jung J, Calkins M, Zhang K, Palmández P, Faestel P, **Spector JT**. Evaluation of the accuracy of an estimated core body temperature algorithm for outdoor agricultural workers. *Archives of Environmental & Occupational Health* 2022;77(10):809-818.
*Primary advisor of first author student
54. D'Evelyn SM, Jung J, Alvarado E, Baumgartner J, Caliguiri P, Haggmann K, Henderson SB, Hessburg PF, Hopkins S, Kasner EG, Krawchuk MA, Krenz JE, Lyderson JM, Marlier ME, Masuda YJ, Metlen K, Mittelstaedt G, Prichard SJ, Schollaert CL, Smith EB, Stevens JT, Tessum C, Whitaker C, Wilkins J, Wolff NH, Wood LM, Haugo RD, **Spector JT**. Wildland fire, smoke exposure, human health, and environmental justice need to be integrated into forest restoration and management. *CEHR* 2022;9(3):366-385. PMID: 35524066; PMCID: PMC9076366.
55. *Chavez-Santos E, **Spector JT**, Egbert J, Chavez-Santos E, Krenz J, Sampson PD, Palmández P, Torres E, Blancas M, Carmona J, Jung J, Flunker J. The effect of the participatory Heat Education and Awareness Tools (HEAT) intervention on agricultural worker physiological heat strain: Results from a parallel, comparison, group randomized study. *BMC Public Health* 2022. 15;22(1):1746. doi: 10.1186/s12889-022-14144-2.
*Research advisor of first author student
56. Flunker JC, Zuidema C, Jung J, Kasner E, Cohen M, Seto E, Austin E, **Spector JT**. Potential Impacts of Different Occupational Outdoor Heat Exposure Thresholds among Washington State Crop and Construction Workers and Implications for Other Jurisdictions. *Int J Environ Res Public Health*. 2022 Sep 14;19(18):11583. doi: 10.3390/ijerph191811583. PMID: 36141863; PMCID: PMC9517246.
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*Research co-advisor of first author student
58. Yassin AH, **Spector J**, Mease L, Shumate A, Hill R, Lincoln J, Baker MG. Workplace determinants of depression, anxiety, and stress in US Mariners during the Covid-19 Pandemic. *IJERPH* 2022;19(24):16628.
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*Primary research advisor of first author student

60. Chin B, Rundell SD, Sears JM, Fulton-Kehoe D, **Spector JT**, Franklin GM. The associations between intensity of physical therapy services on work and health outcomes among injured workers with back pain in Washington State. *AJIM* 2023;66(1):94-106.
61. Clonch A, Harrington M, **Spector JT**, Monsey LM, Baker MG. Exploring determinants of log truck accidents resulting in injury or fatality in the northwest United States Motor Carrier Management Information System data: 2015-2019. *International Journal of Forest Engineering* 2023. DOI:10.1080/14942119.2023.2186026
62. D'Evelyn S, Blancas M, Pollowitz M, Haugo R, Karboski K, Masuda YJ, Pritchard S, Ray K, Walker L, **Spector JT**. Mobilizing through dialogue: building interdisciplinary partnerships among forest health, wildland fire, and public health sectors. *Environmental Research Communications* 2023;5: 031004.
63. Schollaert C, Austin E, Seto E, **Spector J**, Waller S, Kasner E. Smoke monitoring for agricultural safety and health in rural Washington. *Journal of Agromedicine (special issue)* 2023;28(3):595-608.
64. **Spector JT**, Sampson L, Flunker JC, Adams D, Bonauto DK. Occupational heat-related illness in Washington State: A descriptive study of day-of-illness and prior day ambient temperatures among cases and clusters, 2006-2021. *AJIM* 2023;66(8):623-636.
65. D'Evelyn SM, Wood LM, Desautel C, Errett NA, Ray K, **Spector JT**, Alverado E. Learning to Live with Smoke: Characterizing Wildland Fire and Prescribed Fire Smoke Risk Communication in Rural Washington. *Environmental Research: Health (Special issue: 'Focus on Wildfires: Impacts on Health in the Context of Climate Change' with Colleen Reid as the guest editor)* 2023; 1: 025012
66. *Schollaert CL, Jung J, Wilkins J, Alverado E, Baumgartner J, Brun J, Busch-Isaksen T, Lyndersen JM, Marlier ME, Marshall JD, Masuda YM, Maxwell C, Tessum CW, Wilson KN, Wolff NH, **Spector JT**. Can ecological forestry improve public health outcomes? An integrated framework and case study from Central Sierra, CA. *Nature Sustainability* 2023. <https://doi.org/10.1038/s41893-023-01253-y>
*Research advisor of first author student
67. Jung J, Wilkins JL, Schollaert CL, Masuda YJ, Flunker JC, Connolly RE, D'Evelyn SM, Bonillia E, Rappold AG, Haugo RD, Marlier ME, **Spector JT**. Advancing the community health vulnerability index for wildland fire smoke exposure. *STOTEN* 2024; 1:906:167834. PMID: 37839481. DOI: [10.1016/j.scitotenv.2023.167834](https://doi.org/10.1016/j.scitotenv.2023.167834)
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69. *Schollaert CL, Alverado E, Baumgartner J, Busch Isaksen T, Jung J, Marlier ME, Marshall JD, Masuda YJ, Tessum CW, Wilkins J, **Spector JT**. Estimated impacts of forest restoration scenarios on smoke exposures among outdoor agricultural workers in California. *Environmental Research Letters* 2024; 19: 014085.
*Research advisor of first author student
70. Schollaert CL, Marlier ME, Marshall JD, **Spector JT**, Busch Isaksen T. Exposure to smoke from wildfire, prescribed, and agricultural burns among at-risk populations across Washington, Oregon, & California. *Geohealth* 2024;22;8(4):e2023GH000961.
71. Chin B, Rundell SD, Sears JM, Fulton-Kehoe D, **Spector JT**, Franklin GM. Identifying factors associated with physical therapy use versus non-use among injured workers with back pain in Washington State. *AJIM* 2024. doi: 10.1002/ajim.23591.
72. **Spector JT** & Flunker J (equal contributions), Blancas M, Briggs N, Flores M, Whitaker C, Schoonover T, Cardoso T. Farmworker-relevant heat exposure in different crop and shade conditions. *J Agromed* 2024 June 14:1-14. doi: 10.1080/1059924X.2024.2365647.

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74. Chin B, Sears JM, Rundell SD, Fulton-Kehoe D, **Spector JT**, Franklin GM. Access to Physical Therapy Services in Workers with Low Back Pain: Rural-Urban Variation in Washington State. *J Rural Health* 2024. *Under review*.
75. Chavez Santos E, Florez Moreno M, Hernandez A, Moreno-Garcia R, **Spector JT**, Ornelas IJ, Baquero B. “A veces no aguantas lo pesado que es al trabajo” – A qualitative study on work conditions, labor and social policies, and health among Latine agricultural workers in Washington State. *Qualitative Research in Health* 2024. *Under review*.
76. Jung J, Schollaert CL, Masuda YJ, Connolly RE, Bonillia E, Haugo RD, Bandzuh JT, Marlier ME, **Spector JT**, Wilkins JT. Wildland fire smoke exposure disparities by geographic location and land ownership. *Landscape and Urban Planning* 2024. *Submitted*.
77. Reek JE, Smith GR, Cook-Patton S, De Frenne P, D’Odorico P, Floriancic M, Jackson R, Jones J, Kirchner J, Liang Y, Masuda Y, McDonald R, Parsons L, Probst B, **Spector J**, West TAP, Wolff N, Zellweger F, Zohner C, Crowther TW. The role of forests in global climate adaptation. *Science* 2024. *Submitted*.

b. Books and Book Chapters

1. Masuda YJ, Anggraeni I, Game ET, **Spector JT**, Wolff NH. Case Study 2: Climate change and deforestation influence the capacity of tropical forests to cool communities and benefit health. In Olander L, Mason S, Tallis H, Lamb J, Masuda YJ, Kramer R. Ecosystem Services-Climate-Health. In Luber & Lemery (Eds): *Global Climate Change & Human Health: From Science to Practice*. 2nd ed. Hoboken (NJ): Wiley; 2020.
2. **Spector JT** (contributing author) to *Knee Disorders*. In Hegmann KT, editor(s): *Occupational medicine practice guidelines. Evaluation and management of common health problems and functional recovery in workers*. 3rd ed. Elk Grove Village (IL): American College of Occupational and Environmental Medicine (ACOEM); 2011

c. Other Non-Refereed Published Scholarly Publications

1. **Spector J**, Kahn S, Jones M, Jayakumar M, Dalal D, Nazarian S. Migraine headache and the risk of ischemic stroke: A systematic review and meta-analysis of observational studies. *Circulation* 2009;120:S432.
2. Fadrowski JF, Kim N-S, Jaar BG, **Spector J**, Parsons P, Steuerwald, A, Todd AC, Simon D, Lee B-K, Schwartz BS, Weaver VM. Paradoxical associations of urine cadmium with serum creatinine but not cystatin C-based eGFR. #768. *The Toxicologist* 2011;120 (S-2):166.
3. **Spector JT**, Enders L, Altenmüller E, Schmidt A, Klein C, Jabusch H-C. 2011. Musician’s dystonia and comorbid anxiety: Two sides of one coin? *Proceedings of the International Symposium on Performance Science*, Toronto, Canada, 2011, pp. 19-24. The Netherlands: Association Européenne des Conservatoires, Académies de Musique et Musikhochschulen (AEC).
4. **Spector JT**, Kahn SR, Nazarian S. (2011). Response to the Letter to the Editor: Is Migraine a Modifiable Risk Factor for Ischemic Stroke? Potentially Not by S. Sacco and A. Carolei. *American Journal of Medicine*, 124(8):e11.
5. **Spector J**, Navas-Acien A, Fadrowski J, Guallar E, Jaar B, Weaver V. (2012). Response to the Letter to the Editor: Lead and CKD, by Grootendorst et al. *Nephrology Dialysis Transplantation*;0: 1–2.
6. **Spector J** & Lieblich M. (2016). WBGT. R package (to estimate wet bulb globe temperature from datasets of standard meteorological measurements using models developed by Liljegren et al). Version 1.0. Available at: <https://github.com/mdljts/wbgt>

7. Peschel SKV, **Spector JT**, Yong R, Altenmueller E, Jabusch H-C. (2017). Biografische und behaviorale Einflussfaktoren auf die sensomotorische Präzision am Klavier bei Kindern und Jugendlichen. *Musikphysiologie & Musiktherapie*; 1(24):12-18.
8. Rosemberg, M-A S, **Spector J**, McGonagle A, Hartley TA, Ray TK, Newman L, Choosewood LC. (2022) Climatologic conditions, chronic disease and work: Emerging evidence and implications. *NIOSH Science Blog*; [Climatologic Conditions, Chronic Disease and Work: Emerging Evidence and Implications | Blogs | CDC](#)
9. Reek JE, Smith G, Zohner CM, Cook-Paton S, De Frenne Pieter, D'Odorcio P, Floriancic M, Jackson RB, Jones J, Kirchner J, Lague MM, Liang Y, Masuda Y, McDonald RI, Parsons L, Probst B, **Spector J**, West T, Wolff N, Zellweger F, Crowther TW. *EcoEvoRxiv*; <https://ecoevovoxiv.org/repository/view/7631/>

Funding

a. Funded projects (**note: I am fully funded at 100% FTE by SHARP, so I generally do not request FTE on UW grants)

- | | |
|------------------|--|
| 9/30/24-9/29/27 | Pacific Northwest Agricultural Safety and Health Center
A Mixed-Methods Evaluation of Heat-Related Illness Prevention Policy Implementation to Inform Practical Solutions for Farmworkers
CDC/NIOSH 2U54OH007544 (PI: Yost)
Role: PI of subproject
\$750,261 TC; 1.2 CM (budgeted)** |
| 3/01/24-2/28/25 | NIH NOSI: Climate Change and Health Administrative Supplement (NOT-HD-23-006) to U01 TW012236 under the GEOHealth-MENA Hub
Exposure of Syrian refugee agricultural workers in greenhouses to heat stress and its impact on their absorption of pesticides
Role: PI of subcontract (w/ American University of Beirut, PI Nuwayhid et al)
\$15,216 (of parent project \$222,451) TC, 0 CM** |
| 7/1/24-2/28/25 | UW Population Health Initiative Tier 1 Pilot Award
Individual and community-level effects from climate change driven heat and wildfire smoke co-exposures among a Washington state agricultural community.
Role: Co-Investigator/Advisor (PIs Sack & Flunker)
\$24,984 DC, 0 CM** |
| 9/30/24-9/29/25 | Pacific Northwest Agricultural Safety and Health Center Pilot Project Program
CDC/NIOSH 2U54OH007544 (PI: Yost)
Role: Co-Investigator/Advisor (PI: M. Blancas)
\$29,992 TDC, 0CM**
Climate and Mental Health in Agriculture (CLIMA) |
| 9/30/22-10/29/27 | Pacific Northwest Agricultural Safety and Health Center
Use of Location- and Wearable-based Occupational Activity Recognition to Quantify on-the Job Digital Health and Safety Metrics for the Forestry Workforce |

Sub-project of CDC/NIOSH 2U54OH007544 (PI: Yost)
 Role: Co-investigator of Sub-project (PI: Keefe)
 \$628,937 TC, 0 CM**

b. Pending support

07/2024-06/2029 NIH/NIEHS T32ES015459
 Biostatistics, Epidemiologic, and Bioinformatic Training in Environmental Health (BEBTEH)
 Role: Deputy Director (PI: Sheppard)
 \$4,577,218 TC, 0 CM**
 Status: Resubmitted

c. Past projects

4/17/23-9/15/24 UW Earthlab Innovation Grant for Climate & Social Justice
 A Collaborative Approach Preparing and Protecting At-Risk Communities from the Impacts of Climate Change in North-Central Washington
 Role: Faculty PI (led by S. D'Evelyn, with M. Blancas, S. Farquhar and Wenatchee CAFE)
 \$75,000 TC, 0 CM**

9/30/16-9/29/22 Pacific Northwest Agricultural Safety and Health Center – Renewal
 A multi-level approach to heat-related illness prevention in agricultural workers
 Sub-project of CDC/NIOSH 2U54OH007544 (PI: Yost)
 Role: Principal Investigator of Sub-project
 \$750,000 TDC (Sub-project)

7/1/21-6/30/25 Education and Research Center
 NIOSH 2T42OH008433-16 (PI: C. Simpson)
 Role: Deputy Director (through 2022)
 \$1,800,000

12/1/20-1/15/22 California Tahoe Conservancy smoke impacts
 The Nature Conservancy/California Tahoe Conservancy
 Role: PI
 \$43,478, 0.42 CM

6/1/20-11/30/21 Analysis of the global potential for cooling services from agroforestry on agriculture and pastureland
 The Nature Conservancy
 Role: PI
 \$54,698 TC, 0.6 CM

1/1/20-12/31/21 Integrating human health risks from fire into forest restoration planning
 Science for Nature and People Partnerships
 Role: Co-PI (with Ryan Huago)
 \$200,000, 0.0 CM

9/30/19-3/29/21	Smoke Monitoring for Agricultural Safety and Health (SMASH) PNASH Pilot project Role: Co-Investigator (PI Kasner) \$25,000, 0.0 CM
9/1/20-3/31/21	Community-driven approaches to identify barriers to food security due to COVID-19 and solutions to improve food security and resilience in agricultural communities Population Health Initiative Pilot Research Grant University of Washington Role: PI \$40,000 TC, 0.0 CM
5/11/20-9/10/20	Codeveloping culturally relevant messages for farmworker safety and health in the COVID-19 pandemic Population Health Initiative Pilot Research Grant University of Washington Role: Co-I (PI Kasner) \$40,000 TC, 0.0 CM
5/1/19-4/30/20	Creating climate resilient agricultural communities in the tropics through Natural Climate Solutions Population Health Initiative Pilot Research Grant with support from the UW Office of Global Affairs University of Washington Role: PI (with D. Battisti, Atmospheric Sciences and The Nature Conservancy) \$77,409 TC, 0.6 CM
11/1/18-9/23/20	Exertional heat illness: Deployability, risk assessment, and clinical management TriService Nursing Research Program, Uniform Services University of the Health Sciences Role: Consultant (PI: D. Smart) Consultant costs: \$2,000
1/1/18-6/30/19	UW DEOHS Medical Aid/Accident Fund Initiative Project Biomarkers of Stress among Construction Tradeswomen and Tradesmen Role: Co-PI (w/ N. Seixas) \$43,000 ADC, 0 CM
1/1/18-6/30/19	UW DEOHS Medical Aid/Accident Fund Initiative Project Online Occupational Diseases Course for Healthcare Providers Role: Co-investigator (PI: E. Nkyekyer, N. Simcox) \$57,855 ADC, 0 CM
5/1/18-4/30/19	Addressing health disparities faced by rural underserved agricultural communities Population Health Initiative Pilot Research Grant University of Washington

	Role: Co-PI (with V. Galaviz & G. Aisenberg) \$70,000 TC, 0.3 CM
7/1/14-6/30/18	Mentored Research Scientist Development Award (K01) Heat Exposure, Injury Risk, and Productivity in Agricultural Workers CDC/NIOSH Role: PI \$108,000 ADC, 9.0 CM until 6/30/17, NCE 1.2 CM until 6/30/18
2/15/18-6/20/18	Heat illness and deforestation public health study – phase II SCI-UW-180215 The Nature Conservancy Role: PI \$51,322 TC, 0.1 CM
4/10/17-8/1/17	Deforestation and heat illness The Nature Conservancy Role: Principal Investigator \$10,986 TDC
10/1/15-6/30/17	UW DEOHS Medical Aid/Accident Fund Initiative Project Characterization of potential heat-related illness risk factors and heat-associated injury risk in construction workers Role: Principal Investigator \$53,000 ADC, 0 CM
7/1/14-6/30/15	RRF Award Development of a computer vision-based assessment tool for workplace musculoskeletal injury prevention UW Royalty Research Fund Role: Co-Principal Investigator \$40,000 ADC, 0.6 CM
10/6/14-6/30/15	UW DEOHS Medical Aid/Accident Fund Initiative Project Feasibility study to guide the development of a heat alert system aimed at heat-related illness prevention and productivity optimization in Washington agricultural workers Role: Principal Investigator \$19,813 ADC, 0 CM
12/31/12-1/1/14	Safety and Health Investment Projects (SHIP) Return to Work grant Developing and evaluating the effectiveness of an early return-to-work intervention for supervisors of healthcare workers Washington Department of Labor & Industries 2012-RH-00198 Role: Principal Investigator \$91,501 ADC, 1.2 CM
9/30/11-9/29/13	Pacific Northwest Agricultural Safety and Health Center – Renewal Pilot study of risk factors for heat-related illness in agricultural workers

- Sub-project of CDC/NIOSH 2U54OH007544-11 (R. Fenske, PI)
Role: Principal Investigator of Sub-project
\$75,000 ADC, 0.6 CM
- 8/30/12-8/29/13 UW DEOHS Medical Aid/Accident Fund Initiative Project
Feasibility study to guide the development of a computer vision/machine learning-based musculoskeletal hazard assessment and feedback tool for the WA manufacturing sector
Role: Principal Investigator
\$44,125 ADC, 1.2 CM
- 9/1/12-8/31/13 UW DEOHS Medical Aid/Accident Fund Initiative Project
Feasibility study to guide integration of occupational health and safety and health promotion approaches to reduce back injuries in EMS providers
Role: Co-Investigator (N. Seixas, PI)
\$108,139 ADC, 0.6 CM
- 3/1/12-10/1/13 UW DEOHS Medical Aid/Accident Fund Initiative Project
Development of a surveillance strategy to guide injury prevention efforts in the Washington commercial fishing industry
Role: Principal Investigator
\$57,979 ADC, 1.6 CM
- 5/1/12-6/30/13 UW DEOHS Medical Aid/Accident Fund Initiative Project
Online Occupational Medicine Continuing Education Program
Role: Principal Investigator
\$76,337 ADC, 0.6 CM
- 7/1/10-6/30/11 Biostatistics, Epidemiologic, and Bioinformatic Training for Environmental Health (BEBTEH) Training Grant
NIEHS T32 ES015459 (L. Sheppard, PI)
Role: Senior Fellow

Research Presentations

a. Conferences

1. **Spector J**, Navas-Acien A, Fadrowski J, Guallar E, Jaar B, Weaver V. Associations of blood lead with glomerular filtration rate estimated with CKD-EPI and serum cystatin C-based equations. *Northwest Occupational Health Conference, Annual Meeting, Vancouver, British Columbia, 2009.*
2. **Spector J**. Evaluating new kidney outcome assessment methods in lead-exposed populations. *University of Washington/University of British Columbia/Simon Fraser University 21st Annual Occupational and Environmental Health Conference, Semiahmoo, WA, 2010.*
- *3. **Spector JT**, Enders L, Altenmüller E, Schmidt A, Klein C, Jabusch H-C. Musician's dystonia and comorbid anxiety: Two sides of one coin? *International Symposium on Performance Science, Toronto, Canada, 2011.*
4. **Spector JT**. Development and evaluation of the accuracy and feasibility of a computer vision / machine learning-based musculoskeletal hazard assessment and feedback tool. *Eighth International Conference on the Prevention of Work-Related Musculoskeletal Disorders (PREMUS). Busan, South Korea, 2013.*

5. **Spector, JT.** Direct supervisor engagement in injured workers' early, safe return to work. *Northwest Association of Occupational & Environmental Medicine, Portland, OR, 2013.*
6. **Spector JT.** Risk Factors for heat-related illness in agricultural workers in Washington State. *7th International Symposium on Safety & Health in Agricultural & Rural Populations. Saskatoon, Canada, 2014.*
7. **Spector JT.** Risk factors for heat-related illness in Washington crop workers. *University of Washington/University of British Columbia/Simon Fraser/University of Victoria/Oregon State University Annual Occupational and Environmental Health Conference. Semiahmoo, WA, 2015.*
- *8. **Spector JT.** A case-crossover study of heat exposure and injury risk in agricultural workers in Washington State, USA: Preliminary results. *'Heat exposure and health: Impacts on communities and workers' symposium, 25th Annual International Society of Exposure Science Conference. Henderson, Nevada, 2015.*
9. **Spector JT.** A case-crossover study of heat exposure and injury risk in agricultural workers in Washington state: preliminary results. *University of Washington/University of British Columbia/Simon Fraser/University of Victoria/Oregon State University Annual Occupational and Environmental Health Conference. Semiahmoo, WA, 2016.*
10. **Spector JT.** Promoting early, safe return to work in injured employees: A randomized trial of a supervisor training intervention in a healthcare setting. *Workers' Compensation Research Group Meeting, Liberty Mutual Research Institute for Safety. Hopkinton, MA, 2016.*
- *11. Lieblich M, **Spector JT**, Bao S. Challenges in the application of computer vision techniques to ergonomics in manufacturing settings. *Discussion panel on computer vision and occupational ergonomics, Human Factors and Ergonomics Society 60th International Annual Meeting. Washington, DC, 2016.*
- *12. **Spector JT.** Heat-related illness in agricultural workers. *'Health equity and climate change: Latino/migrant workers' panel, American Public Health Association 144th Annual meeting. Denver, CO, 2016.*
13. **Spector JT.** A case-crossover study of heat exposure and injury risk in agricultural workers in Washington State, USA. *25th International Epidemiology in Occupational Health Conference. Barcelona, Spain, 2016.*
14. **Spector JT.** Heat exposure and injury risk in agricultural workers in Washington. *9th Annual Western States Occupational Network (WestON) Conference, Denver, CO, 2016.*
15. **Spector JT.** Heat exposure, injury risk, and productivity in agricultural workers. *NIOSH Expanding Research Partnerships: State of the Science Conference, Aurora, CO, 2017.*
16. **Spector JT.** Health impacts of tropical deforestation and increased heat exposure in rural areas: The case of forest communities in East Kalimantan, Indonesia. *International Society of Exposure Sciences (ISES)/International Society of Environmental Epidemiology (ISEE) Meeting, Ottawa, Canada, 2018.*
17. **Spector JT.** Improving farm worker resilience to health threats through community-driven approaches and partnerships; Building multi-level approaches to address farm worker disparities. *University of Washington/University of British Columbia/Simon Fraser/University of Victoria/Oregon State University Annual Occupational and Environmental Health Conference. Semiahmoo, WA, 2019.*
- *18. **Spector JT.** Heat stress in agricultural workers. *Western Agricultural Safety and Health Conference, Seattle, WA, 2019.*
19. **Spector JT**, Suter MK, Miller KA, Anggraeni I, Ebi KL, Game ET, Krenz J, Masuda YJ, Sheppard L, Wolff NH. Association between work in deforested, compared to forested, areas and human heat strain: An experimental study in a rural tropical environment. *Planetary Health Alliance Annual Meeting, Stanford, CA 2019.*
- *20. **Spector JT.** Can conservation interventions address global climate and sustainability goals while optimizing community and occupational health? *University of Washington/University of*

British Columbia/Simon Fraser/University of Victoria/Oregon State University Annual Occupational and Environmental Health Conference ('Cascadia'). Abbotsford, BC, Canada, 2020.

- *21. **Spector J.** Heat stress in Washington agriculture and construction. *Climate Change and Worker Health Webinar, Washington State Governor's Industrial Safety and Health (GISH) Conference. 2020.*
- *22. **Spector JT.** Heat exposure and safety issues for farmers and farmworkers in the context of climate change. *Climate Risk Interactions in Agriculture and Food System session, Catalyzing Adaptive and Resilient Food Systems Webinar, UC Davis World Food Center.2020.*
- *23. Schulte, P, Sorensen C, **Spector JT.** Climatologic conditions, chronic disease and work: Emerging evidence and its implications. *NIOSH Healthy Work Design Council webinar.2022.*
- *24. **Spector JT.** Comparisons of occupational heat exposure and physiological heat strain assessment approaches. In symposium, "Methods in Heat Exposure Assessment in Community and Occupational Based Research". *International Society of Exposure Science (ISES) Annual Meeting. Lisbon, Portugal. 2022.*
- *25. **Spector JT.** Occupational heat stress: Prevention & Management considerations. *2nd Annual National Integrated Heat Health Integration System (NIHHIS) National Meeting. 2023.*
- *26. **Spector JT.** Lessons learned: Multi-level heat prevention intervention evaluation for Ag workers in the Pacific Northwest. *NIOSH NORA AgFF Discussion Panel. 2023.*
- *27. **Spector JT.** How can scientific research inform occupational heat stress policymaking?" *Environment, Work and Health in the 21st Century: Strategies and Solutions to a Global Crisis meeting, Collegium Ramazzini, 2023.*
- 28. **Spector JT.** Day-of-illness and prior day ambient temperatures among occupational heat-related illness cases and clusters in Washington State, 2006-2021. *Annual Western States Occupational Network (WestON) Conference, Aurora, CO, 2023.*
- *29. **Spector JT.** Policy-relevant occupational heat stress research: Washington State examples in Session: Heat Regulation and Implications for Workers. *1st Annual CAFÉ Climate and Health Conference, Online (Harvard TH Chan SPH), 2024.*
- *30. **Spector JT.** Partner-engaged development & evaluation of farmworker heat prevention & decision support tools. *NIH/NIMHD Climate Change, Health & Justice Workshop, Online, 2024.*
- *31. **Spector JT.** Heat, air pollution, & occupational health. *American Thoracic Society (ATS) occupational exposure to ambient air pollution workshop, Online 2024.*
- 32. **Spector JT.** Farmworker-relevant heat exposure in different crop and shade conditions & opportunities for prevention. *International Society of Exposure Science (ISES) Annual Meeting. Monreal, Canada. 2024.*

b. Seminars

- 1. **Spector JT.** Predictors and implications of retirement in older workers with back pain. *University of Washington Comparative Effectiveness, Cost and Outcomes Research Center (CECORC) Seminar, Seattle, WA, 2011.*
- 2. **Spector J.** Work-related musculoskeletal disorders: A multi-faceted approach to prevention. *University of Washington Department of Environmental and Occupational Health Sciences Seminar, Seattle, WA, 2011.*
- 3. **Spector JT.** Automated workplace musculoskeletal exposure assessment: Is there a role for computer vision? *Northwest Center for Occupational Health & Safety/Education and Research Center, Seattle, WA, 2013.*

- *4. **Spector JT.** Research for prevention of occupational heat-related illness: Perspectives from Pacific Northwest agriculture. *Climate@Emory seminar (sponsored by the Emory Rollins School of Public Health, Department of Environmental Health, and the Nell Hodgson Woodruff School of Nursing), Atlanta, Georgia, 2015.*
- *5. **Spector J.** Research for prevention of occupational heat-related illness in vulnerable populations. *University of Washington Department of Environmental and Occupational Health Sciences Seminar, Seattle, WA, 2016.*
- *6. **Spector JT.** Research for prevention of adverse heat health effects in vulnerable populations. *University of Texas Department of Epidemiology, Human Genetics & Environmental Sciences, Houston, TX, 2018.*
- *7. **Spector JT.** Heatwaves and Health. *University of Washington PCC/CHanGE Seminar, Seattle, WA, 2021.*
- *8. **Spector JT.** Practical solutions for heat-related illness prevention for agriculture. *Center for Agricultural Health and Safety (WCAHS). University of California, Davis 2021.*
- *9. **Spector JT.** Multi-level adaptation approaches to climate-related hazards and the prevention of adverse health effects for working populations. *Department of Environmental Health Sciences, Fielding School of Public Health. University of California, Los Angeles, 2021.*
- *10. **Spector JT.** Prevention of adverse health effects from occupational heat stress. *Scholar Speaker Series for the Center for Health Work and Environment. University of Colorado, 2022.*

Service

a. University

- 2011-2022 University of Washington Campus Health Services Executive Committee, Member
- 2020-2023 University of Washington Population Health Initiative Executive Council, Member

b. SPH

- 2014 Faculty Workgroup of the University of Washington School of Public Health Diversity Committee, Member
- 2017-2018 University of Washington School of Public Health Faculty Equity Task Force, Member
- 2017-2018 University of Washington School of Public Health master's degree for Clinical Fellows (MSCR) Task Force, Member

c. Departmental

- 2012-2013 University of Washington Department of Environmental & Occupational Health Sciences *ad hoc* Faculty Search Committee (Toxicology Program), Member
- 2013-2014 University of Washington Department of Environmental & Occupational Health Sciences Chair Search Advisory Committee, Member
- 2014 Faculty Workgroup of the University of Washington School of Public Health Diversity Committee, Member
- 2014-2018 University of Washington Department of Environmental & Occupational Health Sciences Diversity Committee, Member
- 2014-2015 University of Washington Department of Environmental & Occupational Health Sciences Graduate Common Core Curriculum Task Force, Member
- 2015 Pacific Northwest Agricultural Safety & Health Center Competitive Renewal Committee, Member
- 2016-2017 University of Washington Department of Environmental & Occupational Health Sciences Curriculum Committee, Member

2016-2022	Pacific Northwest Agricultural Safety and Health Center, Internal Advisory Committee member
2018-2022	University of Washington Department of Environmental & Occupational Health Sciences Budget and Management Committee, Member
2019-2020	Department of Medicine (DGIM) Search Committee for Assistant Professor & Puget Sound Employee Health Director, Chair
2019-2020	Department of Medicine (DGIM) Search Committee for Assistant Professor & Occupational & Environmental Pulmonologist, Member
2020-2021	Department of Environmental & Occupational Health Sciences Auxiliary Faculty Committee, Member
2021-2022	Department of Environmental & Occupational Health Sciences Standing Search Committee, Member

d. Professionally-Related/National

2010-2023	American College of Occupational and Environmental Medicine Occupational Medicine Practice Guidelines, Panel Member (Knee Disorders)
2014-Present	Corresponding Member, National Institute for Occupational Safety and Health (NIOSH) Agriculture, Forestry, & Fishing Sector Council, Agriculture Health Working Group
2017-2019	ACGIH [®] Threshold Limit Values for Physical Agents (TLV [®] -PA) Committee, consultant
2019-Present	ACGIH [®] Threshold Limit Values for Physical Agents (TLV [®] -PA) Committee, member
2021-Present	Medical and Science Board, National Heat Safety Coalition
2019	Ad hoc reviewer, CDC/NIOSH Safety and Occupational Health Study Section
2020-2024	Member & Co-Chair (Oct 2021-Present), CDC/NIOSH Safety and Occupational Health Study Section
2022-2023	Member, NACOSH (OSHA Advisory) Heat Injury and Illness Prevention Work Group
2024	Member, Federation of American Scientists Heat Policy Sprint Cohort

e. Other/Local

2008-2009	Volunteer Physician, Shepherd's Clinic, Baltimore, MD, 3 Days/Month
2010-2022	Attending Physician, Occupational & Environmental Medicine Clinic, University of Washington
2010-2015	Volunteer Preceptor of medical students and undergraduates, Al Shifa Clinic (medical student-run clinic at Casa Latina), University of Washington, 2-3 Days/Quarter
2011	Harborview Medical Center Ambulatory Care Advisory Committee, Member
2011-2012	Program Director, University of Washington Harborview Center of Occupational Health and Education (COHE)
2011-2015	University of Washington Occupational and Environmental Medicine Residency Advisory Committee, Member
2015-2019	Chair, UW Occupational and Environmental Medicine Training Program Residency Advisory Committee
2017-2020	Washington Poison Center, Board Member
2019-2020	Member, Healthy Energy Worker Working Group (HEWWG), established by the signing of Washington State Senate Bill (SB 5627) by Governor Jay Inslee on April 17, 2019

- 2019-2022 Member, Advisory committee on occupational disease presumptions established by the signing of Washington State House Bill (HB 2913)
- 2024-Present Member, Bree Collaborative (Foundation for Healthcare Quality) Workgroup on Health Impacts of Extreme Heat

Educational Activities

a. Formal Courses

- 2011, 13 Co-Instructor, Spring Quarter, ENV_H596: Current Issues in Occupational and Environmental Medicine (OEM) –Work-Related Musculoskeletal Disorders, University of Washington, 20% effort
- 2013, 14 Instructor, Summer Quarter, ENV_H576: Clinical Occupational Medicine, University of Washington, 100% effort
- 2015, 16 Instructor, Spring Quarter, ENV_H590B,C: Occupational Disease, University of Washington, 100% effort
- 2017, 18, 20 Instructor, Spring Quarter, ENV_H550: Occupational & Environmental Disease, University of Washington, 100% effort
- 2020-21 Instructor, Autumn & Spring Quarter, ENV_H550: Occupational & Environmental Disease, University of Washington, 100% effort
- 2017, 18 Co-Instructor, Fall & Winter Quarter, ENV_H596: Current Issues in Occupational and Environmental Medicine, 80% effort
- 2017, 18 Co-Instructor, Fall & Winter quarter, ENV_H597: Case Studies in Environmental and Occupational Health, 80% effort
- 2020 Co-Instructor, Winter Quarter, ENV_H596: Current Issues in Occupational and Environmental Medicine, 50% effort
- 2020, 21, 22 Instructor, Winter quarter, ENV_H597: Case Studies in Environmental and Occupational Health, 100% effort

b. Guest Lectures

- 2010 Guest lecturer, ENV_H590A: Case Studies in Environmental & Occupational Health, University of Washington, “Harborview medical assistants with eye, skin, and pulmonary symptoms and concerns about workplace chemical exposures”
- 2011 Guest lecturer, ENV_H590A: Case Studies in Environmental & Occupational Health, University of Washington, “American Board of Preventive Medicine Review Session”
- 2011-12 Guest lecturer, ENV_H576: Clinical Occupational Medicine, University of Washington, “Musculoskeletal Disorders: Work-Relatedness”
- 2012 Guest lecturer, Environmental Health Research Experience Program, University of Washington, “Occupational & Environmental Medicine”
- 2012-13, 15-16 Guest lecturer, ENV_H516: Environmental & Occupational Toxicology III, University of Washington, “Occupational Toxicology”
- 2018 Guest lecturer, ENV_H505: Health Effects of Environmental Contaminants, University of Washington, “Occupational Toxicology”
- 2013, 17, 18, 22 Guest lecturer, ENV_H596: Current Issues in Occupational and Environmental Medicine (OEM)
- 2014-16, 18 Guest lecturer, ENV_H490/590: Health and Safety of Physical Agents in the Workplace, “Heat and Cold Stress”
- 2015 Guest participant, ENV_H 490: Technical Writing in Environmental Health
- 2015 Guest lecturer/participant, ENV_H 592: Climate Change & Occupational Health Journal Club
- 2018 Guest Lecturer, Occupational Medicine Practice, “Prevention of adverse heat health effects in vulnerable populations” (UT SPH)

2019 Guest Lecturer, OSU H546 Physical Agents, “Heat and Cold Stress”
 2013, 2017, Guest lecturer, ENV_H596: Current Issues in Occupational and Environmental
 2018, 2022, Medicine(OEM)
 2024

c. Clinical Teaching

2010-2022 Preceptor of OEM Trainees, Occupational & Environmental Medicine Clinic,
 University of Washington (one half day, three days a month)

d. CME/Outreach

2007 Lecture: Improving the identification of chronic kidney disease. *Internal Medicine Grand Rounds, Hospital of the University of Pennsylvania, Philadelphia, PA.*

2012 Lecture: Optimizing the care of injured workers: The role of evidence-based public health practice. *Puget Sound Occupational & Environmental Medicine Grand Rounds, Seattle, WA.*

2012 Lecture: Optimizing hospital worker health while preventing nosocomial infections. *Association of Professionals for Infection Control Group Annual Regional Conference, Coeur D’ Alene, ID.*

2013 Lecture: Direct supervisor engagement in injured workers’ early, safe return to work. *Northwest Association of Occupational & Environmental Medicine, Portland, OR.*

2014 Lecture: Developing and evaluating early return-to-work multimedia training for immediate supervisors. *Valley Medical Center COHE Employer Advisory Board Meeting, Renton, WA.*

2015 Lecture: Preventing Heat-Related Illness. Current Topics and Best Practices in Occupational and Environmental Medicine in Agricultural Communities. *Northwest Center for Occupational Health and Safety Continuing Education Programs. Yakima, WA.*

2015 Online Webinar (Participating Faculty & Planning Committee member): Graduated Return to Work. *Northwest Center for Occupational Health and Safety Continuing Education Programs.*

2015 Lecture: Heat-related illness in Washington Agriculture: *WA L&I DOSH Safety & Health Technical Symposium, Wenatchee, WA.*

2015 Developed and delivered a case-based three-hour inter-professional education session for UW internal medicine/primary care residents and nursing practice doctoral students, in collaboration with UW internal medicine/primary care faculty: Return to work & occupational health best practices. *Vetrans Affairs Center of Excellence in Primary Care Education (CoE) Medical Home Pathway. Seattle, WA.*

2015 Developed, in collaboration with UW occupational medicine clinic industrial hygienist, and precepted occupational and environmental medicine fellows in the development of, an asbestos risk communication fact sheet and in-person Q&A session for workers at a local company concerned about potential asbestos exposure, Issaquah, WA.

2016 Online lecture: Heat-related illness in agricultural settings. *Northwest Center for Occupational Health and Safety Continuing Education Programs.*

2017 Webinar: Heat-related illness prevention in Ag: A training for all National Institute for Occupational Safety and Health Ag Center Personnel -- presenters June Spector (*Pacific Northwest Agricultural Safety and Health Center*) & Marc Schenker (*Western Center for Agricultural Safety and Health*)

- 2019 Occupational Disease Online Course Series: Noise-Induced Hearing Loss (Participating Faculty). *Northwest Center for Occupational Health and Safety Continuing Education Programs.*
- 2020 Co-developed (with Esi Nkyekyer) and delivered a talk on ‘Disparities & Inequities in Occupational Health’ to over 80 professionals in the UW Certificate Program in Patient Safety & Quality, Healthcare Equity & Diversity session.
- 2020 COVID-19 and the Practice of Occupational Medicine (Moderator). *Puget Sound Grand Rounds, Northwest Center for Occupational Health and Safety Continuing Education Programs.*
- 2021 Practical solutions for heat-related illness prevention for agriculture (Presenter). *AgriSafe Webinar* [National].
- 2021 Industrial Hygiene Principles & Practice Series: Prevention of Heat-Related Illness (Course Director & Participating Faculty). *Northwest Center for Occupational Health and Safety Continuing Education Programs.*
- 2022 Community Engagement Series: Heat-Related Illness Prevention (Co-Presenter). *Northwest Center for Occupational Health and Safety Continuing Education Programs & Pacific Northwest Agricultural Safety and Health Center.*
- 2022 Health and Safety Solutions in Agriculture: Webinar Series for Safety Managers and Health Educators (Presenter). *Northwest Center for Occupational Health and Safety Continuing Education Programs & Pacific Northwest Agricultural Safety and Health Center.*
- 2022 The Heat is On: Understanding Heat Safety Best Practices (Presenter). *Board of Certified Safety Professionals Global Learning Summit.*
- 2022 Heat and wildfire smoke prevention for agricultural workers (Co-Presenter). *Lower Yakima Valley Advisory Board.*
- 2022 Heat and Smoke Symptoms Radio Program “Aqui y Alla” (Presenter). *Radio KDNA (local Spanish language radio station)*
- 2022 Updates on occupational heat-related health outcomes & practical solutions research (Presenter). *CalOSHA Heat Call.*
- 2023 Heat & Health (co-presenter). *Jefferson County Heat Summit.*
- 2023 What the New TLV® for Heat Stress Means for You (co-presenter with T. Bernard), *AIHce annual meeting* (co-presenter)
- 2024 Thurston Conservation District Food & Climate Conference for Growers: Heat Stress Workshop (presenter)
- 2024 UW Climate Change & Clinical Practice Symposium
- 2024 Jefferson County Heat Event Safety Meeting
- 2024 Invited Participant, White House Extreme Heat Summit, Washington D.C.

e. Other

- 2014 Participant, UW Faculty Fellows Program
- 2017 Participant, SPH Leadership Effectiveness Seminar

Advising and Formal Mentoring

a. Doctoral Committee Chair or Co-Chair

1. Miriam Calkins, 2015-2018, DEOHS EOH PhD

*Awarded UW Program on Climate Change Fellowship & 2018 Omenn Award (UW School of Public Health Award for Academic Excellence); current Research Industrial Hygienist with the National Institute for Occupational Safety and Health (NIOSH) and a co-director for the Exposure Assessment Core team in the Fire Fighter Cancer Cohort Study (FFCCS).

2. Dawn Ryan, 2017-2018, DEOHS EOH PhD (Co-Chair w/ Pete Johnson)
3. Maria Blancas, 2018-2021, College of Environment PhD (Co-Chair w/ Kristiina Vogt)
*[Awarded 2019 Bullitt Environmental Prize](#), DEOHS Clinical Assistant Professor
4. Claire Schollaert, 2021-2023, DEOHS EOH PhD (Co-Chair w/ Tania Busch-Isaksen)
*Awarded PCC Graubard Fellowship, Future Rivers Fellow, DEOHS Castner Awardee, current Postdoc at UCLA
5. Stefani Florez-Acevedo, 2024-Present, HSPop PhD (OHSRT) (co-Chair w/ Peggy Hannon)

b. Master's Committee Chair or Co-Chair

1. Wendy Miklos, 2011-2013, DEOHS OEM MPH
2. Kristina Blank, 2013-2014, DEOHS Environmental Health MPH
*Awarded DEOHS Outstanding Master's Student Award; Research Director, University of Washington Collaborative Health Studies Coordinating Center
3. Grant Quiller, 2015-2016, DEOHS Exposure Sciences MS
*Environmental Scientist/Certified Industrial Hygienist at J.S. Held
4. Leanna Gordon, 2018-2019, DEOHS OEM MPH
*Chief of Epidemiology and Disease Control, Madigan Army Medical Center
5. Jessica Chuang, 2018-2019, DEOHS OEM MPH
6. Jared Egbert, 2019-2021, DEOHS OEM MPH
*Associate Chief, MSAR Associate Director, Statistics and Epidemiology Branch, Walter Reed Army Institute of Research
7. Michael Cashman, 2020-2021, DEOHS OEM MPH
8. Leah Wood, 2021-2022, DGH MPH/MPA
*Community Outreach Manager for the Center for Environmental Health Equity at UW DEOHS

c. Doctoral Committee Member

1. Margaret Hughes, 2014-Present, DEOHS EOH PhD candidate
2. Shuva Duwadi, 2014-2017, Health Services (Occupational Health Services Research Training Program) PhD (GSR)
3. Brian Chin, 2017-2023, Health Services (Occupational Health Services Research Training Program) PhD (GSR)
*Fellow, NIOSH Center for Workers' Compensation Studies
4. Suyoung Kwon, 2017-2020, Nursing PhD
5. Erica Chavez-Santos, 2021-2024, Health Services (Occupational Health Services Research Training Program) PhD (GSR)
*Epidemiologist, Work Equity Research Center (WERC), WA L&I SHARP Program

d. Master's Committee Member

1. Molly Halverson, 2011-2013, DEOHS Exposure Sciences MS
2. Lisa Hart, 2011-2013, Occupational & Environmental Health Nursing MN candidate
3. Stanley Kimball, 2012-2014, DEOHS OEM MPH
4. Marc Beaudreau, 2014-2016, DEOHS Exposure Sciences MS
5. Kat Gregersen, 2014-2015, DEOHS Environmental Health MPH
6. Joe Delauter, 2016, DEOHS Exposure Sciences MS
7. Esi Nkyekyer, 2016-2017, DEOHS OEM MPH
8. Priya Motz, 2017-2018, DEOHS OEM MPH
9. Kris Kohlbacher, 2018-2019, DEOHS OEM MPH
10. Benjamin Pierson, 2018-2019, DEOHS OEM MPH
11. Ahmad Yassin, 2021-2022, DEOHS OEM MPH
12. Arron Smith, 2021-2022, DEOHS OEM MPH

e. Postdoctoral Scholars (primary mentor)

1. Jihoon Jung, 2020-2022, DEOHS
*Current tenure-track faculty at University of N. Texas
2. Savannah D'Evelyn, 2020-Present, DEOHS (BEBTEH)
*Awarded NIH/NIEHS K99 ES034442
3. John Flunker, 2021-2024, DEOHS (BEBTEH)
*Current tenure-track faculty at University of Iowa

f. Prior Faculty Mentorship

1. Esi Nkyekyer, Acting Assistant Professor, Clinical Assistant Professor (DOM/DGIM, DEOHS)
2. Ann Tu, Clinical Assistant Professor (DOM/DGIM)
3. Coralynn Sack, Assistant Professor (DOM/DGIM, DEOHS)
4. Chunbai Zhang, Assistant Professor (DOM/DGIM, DEOHS)
5. Edward Kasner, Clinical Assistant Professor (DEOHS)
6. Julianne Meissner, Clinical Assistant Professor (DEOHS)

g. Other

1. Michelle Lam, 2012-2013, MD & Global Health MPH (primary research mentor for Medical Student Research Training Program Summer 2012 project; site supervisor for Global Health MPH practicum)
2. Hannah Frenkel, 2012-2013, Undergraduate Research Intern (primary research mentor)
3. Nicholas Reul, 2012-2014, OEM Senior Fellow & Acting Instructor (primary clinical mentor, general mentor)
* Medical Officer for the Washington State Department of Labor and Industries, Division of Occupational Safety and Health
4. Carly Miller Eckert, 2013-2014, OEM Fellow (academic advisor for Epidemiology MPH practicum)
5. Shilpa Gowda, 2014-2015, OEM Fellow (primary general mentor)
6. Ann Tu, 2015-2016, OEM Fellow (primary general mentor)
*Currently Clinical Assistant Professor at the UW & Physician at Kaiser
7. Noah Qualls, 2015, MD candidate (primary research mentor for Medical Student Research Training Program Summer 2015 project)
8. Gabino Abarca, 2016-2018, Supporting Undergraduate Research Experiences in Environmental Health (SURE-EH) trainee (primary research mentor)
*Received 2017 Washington State Public Health Association Outstanding Student Award; current PhD student at UCLA
9. Esi Nkyekyer, 2016-2017, OEM Fellow (primary general mentor)
10. Priya Motz, 2016-2018, OEM Fellow (primary general mentor)
11. Judith McInnes (Monash University, Victoria, Australia), 2017 (dissertation reader)
12. Megan Suter, 2018, Epidemiology Doctoral Student research assistant (supervisor)
13. Kristin Miller, 2018, Epidemiology Doctoral Student research assistant (supervisor)
14. Gabrielle Felder, 2018, DEOHS EH MPH student research assistant (supervisor)
15. Jessica Chuang, 2017-2019, OEM Fellow (primary general mentor)
16. Benjamin Pierson, 2017-2019, OEM Fellow (primary general mentor)
17. Jared Egbert, 2019-2021, DEOHS OEM MPH student (primary academic advisor)
18. Anthony Norman, 2019, DEOHS OEM MPH student and OEM fellow (primary academic advisor)
19. Claire Schollaert, Spring 2020, Autumn & Winter 2021, DEOHS EOH PhD (lab rotation supervisor, RA supervisor)
20. Leah Wood, Summer 2020, GH MPH (practicum supervisor)
21. Erica Chavez-Santos, Health Services PhD Student research assistant, 2019-2022 (supervisor)

22. Diana Marquez, 2019-2021, Supporting Undergraduate Research Experiences in Environmental Health (SURE-EH) trainee (primary research mentor)
23. Arron Smith, 2020-2022, DEOHS OEM MPH (primary general mentor)
24. Alyssa Miller, Spring 2021, DEOHS EOH PhD (lab rotation supervisor)
25. Emelin Delgado, 2021-2023, Supporting Undergraduate Research Experiences in Environmental Health (SURE-EH) trainee (primary research mentor w/ J. Flunker)
26. Arthur Bagabag, 2021-2022, DEOHS OEM MPH student (primary general mentor)
27. Karla Vega-Colon, 2021-2022, DEOHS OEM MPH student (primary general mentor)
28. Ally Conch, 2022, 2024, DEOHS PhD student (lab rotation supervisor & RA)
29. Miriam Flores, Summer 2022, Epidemiology graduate student research assistant (supervisor)
30. Nicole Briggs, Summer 2022, Epidemiology graduate student research assistant (supervisor)
31. Gabino Abarca Nava 2024-Present, Career mentor, National Program Office for the Health Policy Research Scholars (HPRS) program (Robert Wood Johnson Foundation-supported leadership initiative)