# CURRICULUM VITAE FOR PROMOTION AND TENURE JESSE DAVID BERMAN

**IDENTIFYING INFORMATION**

**Academic Rank**

Assistant Professor, Division of Environmental Health Sciences, School of Public Health, University of Minnesota

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| **Education** |  |
| **Degree** | **Institution** | **Date Degree Granted** |
| B.A. | Colgate University Environmental Biology English Literature | 2004 |
| M.H.S. | John Hopkins Bloomberg School of Public Health Department of Environmental Health Sciences | 2008 |
| Ph.D. | John Hopkins Bloomberg School of Public Health Department of Environmental Health Sciences Advisor: Frank C. Curriero | 2013 |
| **Certificates** |  |  |

JHSPH Certificate in Risk Sciences and Public Policy 2008

# Employment

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| --- | --- |
| University of Minnesota, Twin Cities CampusAssistant Professor, Division of Environmental Health Sciences | 2017-present |
| Johns Hopkins School of Public HealthPostdoctoral Associate, Department of Epidemiology Co-Advisor: Frank Curriero & Kirsten Koehler | 2016-2017 |
| Yale School of Forestry and Environmental Studies Postdoctoral FellowAdvisor: Michelle Bell | 2013-2015 |
| Exponent Inc., Chemical Regulation and Food Safety Practice Scientist | 2005-2010 |
| Assistant Scientist | 2004-2005 |

**Current Membership in Professional Organizations**

Society for Epidemiologic Research [SER], 2019 - Present

International Society of Environmental Epidemiology [ISEE], 2014 - Present International Society of Exposure Science [ISES], 2012 - Present

American Public Health Association [APHA], 2010

Beta Beta Beta Biological Society, 2003 (Lifetime member)

# HONORS AND AWARDS FOR RESEARCH/CREATIVE WORK, TEACHING, PUBLIC ENGAGEMENT, AND SERVICE

## External Sources

Best Environmental Epidemiology Paper in 2019 from the International Society for Environmental Epidemiology (ISEE) for “Acute Air Pollution and Risk of Violent Behavior in the United States,” 2020

Selected Extramural Publication by the National Institute of Environmental Health Sciences (NIEHS) “Drought Associated with Risk of Hospitalizations and Mortality”, 2017

The Gaylord Donnelley Postdoctoral Environmental Fellowship, $100,000 (2-years), Yale University Institute for Biospheric Studies, 2013-2015

David L. Swift Award for Aerosol Research in Environmental Health Engineering, 2010 Alpha Chapter Overall Winner of the Delta Omega Honorary Society Scientiﬁc Poster

Competition, 2010

Exponent Excellence Award, 2006 and 2007

Keck and Mellon Foundation, ENST Summer Research Fellow, 2002

# RESEARCH, SCHOLARSHIP, AND CREATIVE WORK

**Grants and Contracts**

## Received at the University of Minnesota

**Grants Currently Funded**

**External Sources: Federal/National/State**

Role: Multiple PI

Name of PI: Jesse Bell, University of Nebraska Medical Center

Source: NOAA/CPC

Title: Evaluation of Drought Indicators for Improved Decision-Making in Public Health and Emergency Preparedness: Reducing Drought’s Burden on Health

Dates: 2020-2021

Direct Costs: $95,000 (subaward)

Role: Co-Investigator

Name of PI: Claudia Munoz-Zanzi, UMN SPH

Source: National Center for Emerging and Zoonotic Infectious Disease, CDC Type: Contract

Title: Laboratory capacity building and implementation of enhanced surveillance for *Leptospirosis* and *Melioidosis* in Puerto Rico

Date: 2018-2021

Direct Costs: $2,230,000

# *Internal Source: University of Minnesota*

Role: Co-Investigator

Name of PI: Lynette Renner (School of Social Work), Marizen Ramirez (EpiCH)

Source: Office of Academic and Clinical Affairs

Type: Faculty Research Development Grant

Title: School-to-Prison Pipeline to Firearm Violence: Risk Factors and Systems Involvement in Minnesota Youth

Dates: 2020-2022

Direct Costs: $160,575

**Grants Previously Funded and Concluded: University of Minnesota**

***Internal Source***

Role: Principal Investigator

Source: Midwest Center for Occupational Health and Safety

Type: Emerging Issues Award

Title: Using hair as a biological matrix for assessing changes in air pollution exposure and psychosocial stress by occupational type and status during the COVID-19 pandemic

Dates: 2020

Direct Costs: $5,000

Role: Co-Investigator

Name of PI: Gillian Tarr, UMN SPH

Source: UMN Office of Vice President of Research

Type: COVID-19 Rapid Response Grant

Title: How much social distance is enough? Family preparedness

 and responses to non-pharmacologic interventions during the COVID-19 pandemic

Dates: 2020

Direct Costs: $10,000

Role: Co-PI

Source: Institute for Social Research and Data Innovation

Type: Life Course Center Seed Grant

Title: The impacts of extreme weather on older adults time use

Dates: 2020

Direct Costs: $16,000

Role: Co-Investigator

Name of PI: Jon Oliver, UMN SPH

Source: UMN Office of Vice President of Research

Type: Minnesota Futures Grant

Title: Effect of the microbiome on deer tick range expansion in the Upper Midwest

Dates: 2018-2020

Direct Costs: $250,000

**Grants Previously Funded and Concluded: Other Institutions**

***External Sources: Federal/National/Statewide***

Role: Principal Investigator

Source: Great Plains Center for Agricultural Health. CDC NIOSH

Type: Pilot grant

Title: The impact of drought conditions on occupational psychosocial stress among a Midwest farmer cohort

Dates: 2019-2021

Direct Costs: $30,000

Role: Postdoctoral Associate

Name of PI: Kirsten Koehler, Johns Hopkins School of Public Health Source: NIOSH, Centers for Disease Control and Prevention

Type: R01 (1R01OH010533-01A1)

Title: An Inexpensive Monitoring Network to Assess Workplace Aerosol Exposures

Date: 2016-2017

Direct Costs: $536,013

Role: Postdoctoral Associate

Name of PI: Meredith McCormack, Johns Hopkins School of Medicine Source: STAR Award, Environmental Protection Agency

Type: R01 type (83563901 EPA)

Title: Baltimore Healthy Schools: Impact of Indoor Air Quality on Health and Performance

Date: 2016-2017

Direct Costs: $997,822

Role: Postdoctoral Associate

Name of PI: Kirsten Koehler, Johns Hopkins School of Public Health Source: STAR Award, Environmental Protection Agency

Type: Center Grant (R835871 EPA)

Title: Solutions to Energy AiR, Climate, and Health

Date: 2017

Direct Costs: $9,999,990

***Internal Source: Johns Hopkins***

Role: Co-Investigator

Name of PI: Frank Curriero, Johns Hopkins School of Public Health Source: Johns Hopkins Center in Urban Environmental Health

Type: Pilot grant

Title: Developing Traffic Density Metrics as Determinants of *NO*2 Exposure: A Pilot Study in East Baltimore

Date: 2010

Direct Costs: $25,000

# Grants Submitted and Under Review (Decision Pending) *External Sources: Federal/National/MN Statewide*

Role: Co-Principal Investigator

Name of PI: Jesse E Bell, University Nebraska Medical Center

Source: NIH NIA

Title: Identifying Public Health Applications of Satellite-derived Drought Indicators: Improved Monitoring for Respiratory Health

Dates: 2022-2025

Direct Costs: $242,781 (subaward)

Role: Co-Principal Investigator

Name of PI: Sarah Flood, UMN Minnesota Population Center

Source: NIH NIA

Type: R01

Title: Temperature, Time-Use, and Well-Being: A socioecological analysis of older U.S. adults

Dates: 2022-2025

Direct Costs: $833,636

Role: Co-Investigator

Name of PI: Jennifer Poynter, UMN Medical School Pediatrics

Source: NIH NCI

Type: UG3/UH3

Title: The 10,000 Families Cohort: a new study to understand the environmental causes of cancer

Dates: 2022-2026

Direct Costs: $12,711,818

Role: Co-Investigator

Name of PI: Melton-Meaux/Tignanelli, UMN Medical School

Source: NIH

Title: Real ID: Real-World Informatics Data to characterize and manage PASC phenotypes

Dates: 2021-2025

Direct Costs: $29,983,302

Role: Co-Investigator

Name of PI: Paul Drawz, UMN Medical School

Source: NIH

Title: Post-Acute Sequelae of COIVD-19: Statewide cohort study with clinical decision support

Dates: 2021-2025

Direct Costs: $12,266,097

# Grants Re-submitted or In Preparation for Re-submission

# *External Sources: Federal/National/MN Statewide*

Role: Co-Investigator

Name of PI: Mark Periera, UMN SPH

Source: NIH NIEHS

Type: R01

Title: Health Effects of Walking in Greenspace and the Built Environment in Prediabetic Adults

Dates: 2022-2026

Direct Costs: $2,500,000

# Publications

## Book Chapter

Tran NL, **Berman JD.** 2006. *Quarantine Stations at Ports of Entry. Appendix E. Microbial threats of public health signiﬁcance originating in animals or animal products at U.S. ports of entry.* The National Academies Press, Washington, DC.

*Role: Data Collection, Data Management, Data Analysis, Draft Manuscript*

## Refereed/Peer Reviewed Journal Articles (Student Authors are underline)

* 1. Ghazi L, Drawz P, **Berman JD**. [In Press]. Fine particulate matter (PM2.5) is associated with chronic kidney disease: Findings using electronic health records data. *Journal of Exposure Science and Environmental Epidemiology*

*Role: Conceptualization, Study Design, Interpretation, Review Manuscript*

* 1. Nori-Sarma A, Thimmulappa R, Venkataraman GV, WarrenJL, **BermanJD**, Whittaker SD, Kulick ER, Wellenius GA, Rao MV, Bell ML. 2021. NO2 Exposure and Lung Function Decline in a Cohort of Adults in Mysore, India. *Environmental Research Communications* 3: 055001

*Role: Data Analysis, Interpretation, Review Manuscript*

* 1. Rau A, Munoz-Zanzi C, Schotthoefer AM, Oliver J, **Berman JD**. 2020. Spatio-temporal dynamics of tick-borne diseases in north-central Wisconsin from 2000-2016. *International Journal of Environmental Research and Public Health* 17(14): 5105

*Role: Conceptualization, Data Analysis, Study Design, Interpretation, Review Manuscript*

* 1. **Berman JD**, Burkhardt J, Bayham J. 2020. Hot Under the Collar: A 14-Year Association Between Daily Temperature and Violent Criminal Behavior Across 436 U.S. Counties. *Environmental Research* 191: 110181

*Role: Data Collection, Data Management, Data Analysis, Study Design, Interpretation, Draft Manuscript*

* 1. **Berman JD**, Ebisu K. Changes in U.S. Air Pollution During the COVID-19 Pandemic.2020. *Science of the Total Environment* 739: 139864

*Role: Data Collection, Data Management, Data Analysis, Study Design, Interpretation, Draft Manuscript*

* 1. Nori-Sarma A, Thimulappa R, Venkataraman G, Azis Fauzie A, Dey S, Venkareddy L, **Berman JD**, Lane KE, Fong K, Warren J, Bell ML. 2020. Low-Cost NO2 Monitoring and Urban Exposure Prediction Using Universal Kriging and Land-Use Regression in Mysore, India. *Atmospheric Environment* 226(1): 117395.

*Role: Study Design, Data Analysis, Interpretation, Review Manuscript*

* 1. Burkhardt J, Bayham J, Wilson A, Carter EM, **Berman JD**, O’Dell K, Ford B, Fischer E, Pierce J. 2019. The Effect of Pollution on Aggressive Behavior: Evidence from Wildfires and Crime. *Journal of Environmental Economics and Management* 98: 102267

*Role: Data Collection, Data Management, Review Manuscript*

* 1. **Berman JD**, Burkhardt J, Bayham J, Carter EM, Wilson A. 2019. Acute Air Pollution and Risk of Violent Behavior in the United States, 2000-2013. *Epidemiology* 30(6): 799-806.

*Role: Data Collection, Data Management, Data Analysis, Study Design, Interpretation, Draft Manuscript*

* 1. Jin L, **Berman JD**, Warren JL, Levy JI, Thurston G, Zhang Y, Xu X, Wang S, Zhang Y, Bell ML. 2019. A land use regression model of nitrogen dioxide and fine particulate matter in a complex urban core in Lanzhou, China. *Environmental Research* 177: 108597

*Role: Study Design, Data Analysis, Review Manuscript*

* 1. Burkhardt J, Bayham J, Wilson A, **Berman JD**, O’Dell K, Ford B, Fischer E, Pierce J. 2019. The Relationship Between Monthly Air Pollution and Violent Crime Across the United States. *Journal of Environmental Economics and Policy*: 1-18.

*Role: Data Collection, Data Management, Review Manuscript*

* 1. Jin L, **Berman JD**, Zhang L, Thurston G, Zhang Y, Bell ML. 2019. Land use regression study in Lanzhou, China: a pilot sampling and a framework of monitoring network design for understudied areas. *Atmospheric Environment* 210(1): 253-262

*Role: Study Design, Data Analysis, Interpretation, Review Manuscript*

* 1. **Berman JD**, Jin L, Bell ML, Curriero FC. 2019. Using geostatistical simulation to inform the quantity and placement of new monitors for a follow-up air sampling campaign. *Journal of Exposure Science and Environmental Epidemiology* 29: 248-257

*Role: Data Collection, Data Analysis, Data Management, Study Design, Interpretation, Draft Manuscript*

* 1. Majd E, McCormack M, Davis MF, Curriero FC, **Berman JD**, Connolly F, Leaf PJ, Rule AM, Green T, Clemons-Erby D, Gummerson C, Koehler KA. 2019. Indoor air quality in inner-city schools and its associations with building characteristics and environmental factors. *Environmental Research* 170: 83-91.

*Role: Data Analysis, Review Manuscript*

* 1. **Berman JD**, McCormack M, Koehler KA, Connolly F, Clemons-Erby D, Davis MF, Gummerson C, Leaf PJ, Curriero FC. 2018. School Environmental Conditions and Links to Academic Performance and Absenteeism in Urban, Mid-Atlantic Public Schools. *International Journal of Hygiene and Environmental Health.* 221(5):800-808.

*Role: Data Collection, Data Analysis, Data Management, Study Design, Interpretation, Draft Manuscript*

* 1. **Berman JD**, Peters TM, Koehler KA. 2018. Optimizing a Sensor Network with Data from Hazard Mapping Demonstrated in a Heavy-Vehicle Manufacturing Facility. *Annals of Work Exposures and Health*. 62(5):547-558.

*Role: Data Analysis, Data Management, Study Design, Interpretation, Draft Manuscript*

* 1. **Berman JD**, Ebisu K, Peng RD, Dominici F, Bell ML. 2017. Drought and the Risk of Hospital Admissions and Mortality in Western U.S. Older Adults from 2000 to 2013: a retrospective study. *The Lancet Planetary Health* 1(1):17-25.

*Role: Data Collection, Data Management, Data Analysis, Study Design, Interpretation, Draft Manuscript*

* 1. Ebisu K, **Berman JD**, Bell ML. 2016. Exposure to Coarse Particulate Matter During Gestation and Birth Weight in the US. *Environment International* 94:519-524.

*Role: Study Design, Interpretation, Review Manuscript*

* 1. **Berman JD**, Breysse PN, White RH, Waugh DW, Curriero FC. 2015. Evaluating Methods for Spatial Mapping: Applications for Estimating Ozone Concentrations across the Contiguous United States. *Environmental Technology and Innovation* 3:1-10.

*Role: Data Collection, Data Management, Data Analysis, Study Design, Interpretation, Draft Manuscript, Review Manuscript*

* 1. Le GE, Breysse PN, McDermott A, Eftim SE, Geyh A, **Berman JD**, Curriero FC. 2014. Canadian Forest Fires and the Eﬀects of Long-Range Transboundary Air Pollution on Hospitalizations among the Elderly. *ISPRS International Journal of Geo-Information* 3(2):713-731.

*Role: Data Analysis, Review Manuscript*

* 1. **Berman JD**, Fann N, Hollingsworth JW, Pinkerton KE, Rom WN, Szema AM, Breysse PN, White RH, Curriero FC. 2012. Health beneﬁts from large scale ozone reduction in the United States. *Environmental Health Perspectives* 120(10): 1404-1410.

*Role: Data Collection, Data Management, Data Analysis, Study Design, Interpretation, Draft Manuscript, Review Manuscript*

* 1. Hoham RW, Frey FM, **Berman JD**, Ryba JB, Duncan JE, Forbes AA, Goodridge BM, Miller PR. 2009. The eﬀects of irradiance level, photoperiod, and cell density on sexual reproduction in the green snow alga, Chloromonas chenangoensis, from Upstate New York. *Nova Hedwigia* 89(1):1-16.

*Role: Data Collection, Data Management, Data Analysis, Review Management*

* 1. **Berman JD**, McCay TS, Scull P. 2007. Spatial analysis of species richness of shrews (Soricomorpha:Soricidae) in North America north of Mexico. *Acta Theriologica* 52:151-158.

*Role: Data Collection, Data Management, Data Analysis, Study Design, Interpretation, Draft Manuscript*

* 1. Hoham RW, **Berman JD**, Rogers HS, Felio JH, Ryba JB, Miller PR. 2006. Two new species of green snow algae from Upstate New York, Chloromonas chenangoensis sp. nov. and Chloromonas tughillensis sp. nov. (Volvocales, Chlorophyceae) and the eﬀects of light on their life cycle development. *Phycologia* 45(3):319-330.

*Role: Data Collection, Data Management, Data Analysis, Draft Manuscript*

## Refereed/Peer Reviewed Journal Articles Under Review (Student Authors are underlined)

**Berman JD**, Bell J, Ramirez MR, Bilotta R, Gerr FE, Fethke N. [*In Review*]. The association between drought conditions and occupational psychosocial stress among a Midwestern U.S. farmers cohort.

*Role: Data Management, Data Analysis, Study Design, Interpretation, Draft Manuscript*

Smith ML, MacLehose R, Chadler JW, **Berman JD**. [*In Review*]Thunderstorms, Pollen and Severe Asthma in a Midwestern, USA Urban Environment, 2007-2018.

*Role: Conceptualization, Study Design, Interpretation, Review Manuscript*

## Non-Refereed/Peer Reviewed Journal Articles

**Berman JD**, Breysse PN, White RH, Curriero FC. 2012. Health-related benefits of attaining the daily and annual PM2*.*5 air quality standards and stricter alternative standards. Final Report submitted to the American Thoracic Society Health Policy Committee

*Role: Data Collection, Data Management, Data Analysis, Interpretation, Data Management*

## Media and Interviews

Salon. “Trump’s EPA refuses to to reduce pollutants linked to coronavirus deaths.” October 26, 2020. <https://www.salon.com/2020/10/26/trumps-epa-refuses-to-reduce-pollutants-linked-to-coronavirus-deaths_partner/>

ProPublica. “The EPA refuses to reduce pollutants linked to coronavirus deaths.” October 21, 2020. <https://www.propublica.org/article/the-epa-refuses-to-reduce-pollutants-linked-to-coronavirus-deaths>

BringMeTheNews. “Air pollution in the Twin Cities dropped 20% during COVID-19 shutdown, U of M finds.” July 16, 2020. https://bringmethenews.com/minnesota-news/air-pollution-in-the-twin-cities-dropped-20-during-covid-19-shutdown-u-of-m-finds

MinnPost. “University of Minnesota study shows declines in air pollution during the COVID pandemic.” July 13, 2020. https://www.minnpost.com/environment/2020/07/university-of-minnesota-study-shows-declines-in-air-pollution-during-the-covid-pandemic/

WCCO CBS Minnesota. “University of Minnesota researchers find air pollution declines during pandemic.” July 13, 2020. https://minnesota.cbslocal.com/2020/07/13/university-of-minnesota-researchers-find-air-pollution-declines-during-pandemic/

KIMT3 News. University of Minnesota finding air pollution declines during COVID-19 pandemic.” July 13, 2020. https://www.kimt.com/content/news/University-of-Minnesota--571753571.html

Global Citizen. “New Delhi Shut Down Schools in Response to Severe Air Pollution.” November 1, 2019. <https://www.globalcitizen.org/en/content/new-delhi-schools-shut-down-air-pollution>

The Economist. “Exposure to air pollution is linked to an increase in violent crime.” October 9, 2019. <https://www.economist.com/graphic-detail/2019/10/09/exposure-to-air-pollution-is-linked>

-to-an-increase-in-violent-crime

FOX 9 News. “Air Pollution Linked to Violent Behavior, says University of Minnesota Study.” September 10, 2019. <https://www.fox9.com/video/603682>

Duluth News Tribune. “Air pollution and violence linked.” September 14, 2019. [https://www.](https://www/) duluthnewstribune.com/lifestyle/health/4660608-Air-pollution-and-violence-linked

CBS Minnesota. “Researchers Link Air Pollution To Increases In Violent Criminal Behavior.” September 10, 2019. <https://minnesota.cbslocal.com/2019/09/10/researchers-link-air-pollution-to-> increases-in-violent-criminal-behavior/

Kanebec County Times. “Minnesota air quality good but be alert for high pollution events.” July 22, 2019. <http://www.moraminn.com/news/minnesota-air-quality-good-but-be-alert-for-high-> pollution/article\_2a4e1522-a8a3-11e9-bad3-ebd23bb4fb13.html

UMN Experts. “Talking Minnesota Air Quality with UMN.” July 10, 2019. [https://twin-cities.](https://twin-cities.umn.edu/news-events/talking-minnesota-air-quality-u-m) [umn.edu/news-events/talking-minnesota-air-quality-u-m](https://twin-cities.umn.edu/news-events/talking-minnesota-air-quality-u-m)

Global Citizen. “Air Pollution Is Killing More People Than Previously Thought: Study” March 13, 2019. <https://www.globalcitizen.org/en/content/air-pollution-deaths-globally/>

Grand Forks Herald. Everyday choices can affect carbon emissions." December 22, 2018. https://[www.grandforksherald.com/news/science-and-nature/4545963-everyday-choices-can-](http://www.grandforksherald.com/news/science-and-nature/4545963-everyday-choices-can-) affect-carbon-emissions

Minnesota Daily. “Wildfire Smoke Impacts University of Minnesota Student Health.” September 4, 2018. [http://www.mndaily.com/article/2018/09/n-wildfire-smoke-impacts-](http://www.mndaily.com/article/2018/09/n-wildfire-smoke-impacts-university-of-minnesota-student-health) [university-of-minnesota-student-health](http://www.mndaily.com/article/2018/09/n-wildfire-smoke-impacts-university-of-minnesota-student-health)

UMN Experts. “Recent Data Points to Fatal Aspects of Air Pollution.” May 10, 2018. [https://](https://twin-cities.umn.edu/news-events/umn-expert-recent-data-points-fatal-aspects-air-) [twin-cities.umn.edu/news-events/umn-expert-recent-data-points-fatal-aspects-air-](https://twin-cities.umn.edu/news-events/umn-expert-recent-data-points-fatal-aspects-air-)pollution

Balbus J. 2017. Commentary: Understanding Drought’s Impacts on Human Health. The *Lancet Planetary Health* 1(1):e12.

“Droughts Tied to Climate Change Could Bring Health Risks for Seniors.” April 5, 2017. Published in numerous outlets, including *Bismarck Tribune, Corvallis Gazette Times, Lincoln Journal Star, Nature World News, Philadelphia Inquirer, St. Louis Post Dispatch, U.S. News & World Report, WebMD*

MedPage Today. “Drought in Western US Led to Increase in Deaths.” April 5, 2017. https://[www. medpagetoday.com/publichealthpolicy/environmentalhealth/64375](http://www.medpagetoday.com/publichealthpolicy/environmentalhealth/64375)

Media Matters for America. “A Sad and Shallow Screed: Experts Tear Apart WSJ Op-Ed Denying Health Beneﬁts of Reducing Smog Pollution.” September 4, 2015. [http://mediamatters.org/research/2015/ 09/04/a-sad-and-shallow-screed-experts-tear-apart-](http://mediamatters.org/research/2015/09/04/a-sad-and-shallow-screed-experts-tear-apart-) wsj/205370

Johns Hopkins Public Health Magazine. “Ozone’s Unnecessary Toll.” Fall 2012. <http://magazine.jhsph.edu/2012/fall/news_briefs/ozones-unnecessary-toll/>

U.S. News & World Report. “Reducing Ozone Limits would Save Lives, Report States.” July 18, 2012. [http://health.usnews.com/health-news/news/articles/2012/07/18/reducing-ozone- limits-would-save-lives-report-states](http://health.usnews.com/health-news/news/articles/2012/07/18/reducing-ozone-limits-would-save-lives-report-states)

## Invited Presentations at Professional Meetings, Conferences, etc.

**Internal Seminars - University of Minnesota**

*Patterns of psychological distress during the COVID-19 pandemic.* Minnesota Population Center/OVPR Rapid Response Grants. November 2020.

*Spatial methods to evaluate health disparities and vulnerability with case-control data.* Health Equities Working Group Spring Meeting. February 2020.

*The impact of climate change on human health.* Healthy Futures Summit at the University of Minnesota School of Public Health. December 2019.

*Getting Hot Under the Collar: Does air pollution exposure and temperature increase the risk of violent behavior?* Division of Biostatistics Seminar. October 2019.

*Air pollution exposure and the increased risk of violent behavior: evidence from 14-years of U.S. crime data.* University of Minnesota Population Center Seminar. February 2019.

*Are Air Pollutants Linked to Violent Behavior? Evaluating Population-Wide Environmental Exposures.* Epidemiology and Community Health Seminar. September 2018.

*Drought and Health Risks in U.S. Older Adults.* University of Minnesota School of Public Health Research Day. April 2018.

***Invited Presentations at Professional Meetings, Conferences, etc.***

*Scoring Methodology for Drought Indicators*. National Integrated Drought Information System. May 2021

*The Existing Challenges and Opportunities in Drought and Health Research*. Society for Epidemiological Research. December 2020

*Chronic kidney disease in urban Minnesota: spatial patterns and environmental risk factors*. Johns Hopkins University GIS Day. Baltimore, MD. November 2020

*Exploration of Ticks and Tickborne Disease Using Environmental Epidemiology*. Minnesota Tick and Tickborne Pathogen Symposium. Minneapolis, MN. March 2020

*Getting Hot Under the Collar: Air Pollution, Temperature, and Violent Behavior*. Minnesota Environmental Health Association. St. Paul, MN. January 2020

*The Complexity of Drought and Health Research*. Midwest Drought and Human Health Workshop. St. Paul, MN. November 2019.

*Evaluating the Drought and Health Relationship: Association with Mortality.* National Drought and Public Health Summit. Atlanta, GA. June 2019.

*Drought and the Risk of Hospital Admissions and Mortality in Western U.S. Older Adults from 2000 to 2013: A Retrospective study*. Planetary Health/GeoHealth Annual Meeting. April 2017.

*Drought Events and the Risk of Emergency Room Hospitalizations and Mortality in the western US*. Symposium on Climate Change and Health; Yale Climate Change and Energy Initiative [YCEI]. April 2016.

*Air Pollution and Improved Characterization of Exposure through Spatial Statistics*. Yale Institute for Biospheric Studies and Environmental Research Center Seminar Series. February 2014.

*The Role of Mapping and GIS in Public Health: A Perspective of Ozone Air Pollution*. Program for Environmental Studies Seminar, Colgate University. February 2013.

*Assessing the Health Beneﬁts of Nationwide Reductions in Ozone Air Pollution*. The American Thoracic Society 2010 International Conference; New Treatment Approaches for Lung Disease: Late Breaking Abstracts. May 2010.

*The Health Beneﬁts of Nationwide Reductions in Ozone Air Pollution.* Johns Hopkins Bloomberg School of Public Health Department of Environmental Health Sciences Research Retreat. January 2010.

***Invited Presentations at State/Federal Agencies***

*Can Air Pollution Talks Also be Mixtures?* Recent Advances in Health Effects Research and New Methods for Sampling Campaigns. State of Minnesota Pollution Control Agency. September 2019.

## Contributed Papers Presented at Professional Meetings, Conferences, etc.

**Berman JD**. Exploring the association between drought and health: psychosocial stress in farmers. International Society of Environmental Epidemiology (ISEE). August 2020.

**Berman JD**, Burkhardt J, Bayham J, Ellison C, Wilson A. Acute air pollution exposure, temperature, and the risk of violent behavior in the United States. ISEE Conference. Utrecht, Netherlands. August 2019

**Berman JD**, Jin L, Bell ML, Curriero FC. *Using Geostatistical Simulation to Inform the Quantity and Placement of New Monitors for a Follow-up Air Sampling Campaign.* ISES/ISEE Joint Conference; Advances in Air Pollution Modeling. August 2018

McCormack M, Connolly F, Rule AM, Davis MF, Majd E, Curriero FC, Wu D, Clemons- Erby D, Leaf PJ, **Berman JD**, Koehler KA. *School Environment, Indoor Air Quality, Student Performance and Health.* ISES/ISEE Joint Conference; Healthy Schools. August 2018

**Berman JD**, McCormack M, Koehler KA, Connolly F, Clemons-Erby D, Davis MF, Gummerson C, Leaf PJ, Curriero FC. *School environment and links to student performance in an urban, mid-Atlantic Region.* International Society of Exposure Science [ISES]; Environmental Justice. October 2017

**Berman JD**, Ebisu K, Dominici F, Peng RD, Bell ML. *Drought and the Risk of Hospital Admissions and Mortality in Western U.S. Older Adults from 2000 to 2013: a retrospective study.* International Society of Exposure Science [ISES]; Climate Change. October 2017

Jin L, **Berman JD**, Huang K, Zhang Y, Xu X, Bell ML. *Monitoring Network Design for a Land Use Regression Study in Lanzhou, China.* International Society of Environmental Epidemiology [ISEE] Conference; Health Impact Assessment in Air Pollution Session. August 2016

**Berman JD**, Ebisu K, Dominici F, Wang Y, Peng RD, Bell ML. *Drought Events and the Risk of Emergency Room Hospitalizations and Mortality in the western United States Elderly Population, 2000-2013*. The International Society of Exposure Science [ISES] Conference; Epidemiological Investigations - II. October 2015

**Berman JD**, Breysse PN, White RN, Waugh DW, Curriero FC. *Eﬀects of city speciﬁc data on health impact assessments of reduced ozone concentrations*. International Society of Environmental Epidemiology [ISEE] Conference; Health Impact Assessment in Air Pollution Session. August 2014

**Berman JD**, Breysse PN, White RN, Waugh DW, Curriero FC. *Eﬀects of city speciﬁc data on health impact assessments of reduced ozone concentrations.* International Society of Environmental Epidemiology [ISEE] Conference; Health Impact Assessment in Air Pollution Session. August 2014

***Poster Presentations*** (Student presenter is underlined)

**Berman JD**, Burkhardt J, Bayham J. Hot under the collar: the association between daily temperature and temperature deviations with violent criminal behavior. International Society of Environmental Epidemiology (ISEE). August 2020.

Ghazi L, Drawz PE, **Berman JD**. Fine particulate matter is associated with chronic kidney disease: findings using electronic health record data. International Society of Environmental Epidemiology (ISEE). August 2020.

**Berman JD**, Burkhardt J, Bayham J, Ellison C, Wilson A. Acute air pollution exposure and the Risk of Violent Behavior: a 14-Year Longitudinal Assessment. Society for Epidemiologic Research Conference (SER). June 2019

Rau A, Munoz-Zanzi C, **Berman JD**. Characterizing Leptospirosis vulnerability in Puerto Rico. UMN SPH Research Day. April 2019

Gummerson C, **Berman JD**, McCormack M, Koehler KA, Connolly F, Clemons-Erby D, Davis MF, Leaf PJ, Curriero FC. *School Environmental Conditions and Links to Academic Performance and Absenteeism in Urban, Mid-Atlantic Public Schools*. EPA Science to Achieve Results (STAR) Healthy Schools Meeting. November 2017

**Berman JD,** Peters TM, Koehler KA. *Optimizing a Sensor Network with Data from Hazard Mapping Demonstrated in a Heavy-Vehicle Manufacturing Facility*. International Society of Exposure Science [ISES]. October 2017

**Berman JD**, Breysse PN, White RH, Bell ML, Curriero FC. *Eﬀects of city-speciﬁc data on health impact assessments of reduced ozone concentrations in 44 U.S. cities.* International Society of Exposure Science [ISES]. October 2014

**Berman JD**, Waugh DW, Breysse PN, White RH, Curriero FC. *Improved spatial prediction of ozone air pollution using CMAQ model data and spatial statistical methodology*. Chesapeake American Industrial Hygiene Association/American Society of Safety Engineers [AIHA/ASSE] Professional Development Conference. March 2013

**Berman JD**, Waugh DW, Breysse PN, White RH, Curriero FC. *Improved spatial prediction of ozone air pollution using CMAQ model data and spatial statistical methodology.* International Society of Exposure Science [ISES]. October 2012

**Berman JD**, Curriero FC, White RH, Breysse PN. *Assessing the health beneﬁts from nationwide reductions of ozone air pollution. American Public Health Association [APHA].* November 2010, Denver, CO [Invited]

**Berman JD**, Curriero FC. *Assessing the health beneﬁts from nationwide reductions of ozone air pollution*. Johns Hopkins University Delta Omega Scientiﬁc Poster Competition. February 2010

Tran NL, **Berman JD**, Barraj LM, Alexander TM. *Soy protein consumption and cardiovascular disease risk factors.* 6th International Symposium on the Role of Soy in Preventing and Treating Chronic Disease. November 2005

**Berman JD**, Scull P, McCay TS. 2004. *Environmental Inﬂuence on regional (Gamma) Shrew Diversity in North America.* American Society of Mammalogists [ASM]. June 2004

Duncan JE, Gerken NE, Forbes AA, Goodridge BM, **Berman JD**, Miller PR, Ryba JB, Hoham RW. 2003. *The Effects of Light and Cell Density on Sexual Reproduction in a Homothallic Species of the Green Snow Alga, Chloromonas*. North East Algal Society [NEAS]. April 2003

# TEACHING AND CURRICULUM DEVELOPMENT

**University of Minnesota**

## Courses Taught at University of Minnesota School of Public Health

|  |  |  |
| --- | --- | --- |
| **Semester/Year** | **Course, Title, Description** | **Role, # Students, Credits** |
| Spring 2020 | PubH 8120; Occupational Health & Safety Research Seminar | Co-Instructor; 16 students; 1 credit |
| Fall 2020 | PubH 6141; GIS & Spatial Analysis for Public Health | Sole Instructor; 27 students; 3 credits |
| Fall 2020 | PubH 8120; Occupational Health & Safety Research Seminar | Co-Instructor; 19 students; 1 credit |
| Spring 2020 | PubH 8120; Occupational Health & Safety Research Seminar | Co-Instructor; 16 students; 1 credit |
| Fall 2019 | PubH 6100; GIS & Spatial Analysis for Public Health | Sole Instructor; 16 students; 3 credits |
| Fall 2019 | PubH 8120; Occupational Health & Safety Research Seminar | Co-Instructor; 19 students; 1 credit |
| Fall 2018 | PubH 6100; GIS & Spatial Analysis for Public Health | Sole Instructor; 17 students; 3 credits |

## Course Development at University of Minnesota School of Public Health

Fall 2018 PubH 6100: GIS & Spatial Analysis for Public Health. Sole Instructor; 3 credits

 *An introduction to Geographic Information Systems (GIS) and applied spatial data analysis for public health research*

## Collaborative Efforts and Activities

**Guest Lecture Activities**

|  |  |  |  |
| --- | --- | --- | --- |
| Spring 2021 | PH601.805.86: Spatial Analysis Journal Club*Geostatistical modeling methods* | Johns Hopkins School of Public Health | Co-Instructor; 23 students; 2 credits |
| Fall 2020 | PH601.731.86: Spatial Analysis for Public Health*GIS and ozone air pollution impacts* | Johns Hopkins School of Public Health | Co-Instructor; 4 credits |
| Spring 2020 | PA 5209: Urban Planning & Health Equity | UMN Humphrey School of Public Affairs | Sole Instructor;12 students; 3 credits |
| Spring 2020 | PubH 6140: Occupational and Environmental Epidemiology*Advanced Temporal and Spatial Methods* | UMN School of Public Health | Sole Instructor;  |
| Spring 2020 | PH601.805.86: Spatial Analysis Journal Club*Geostatistical modeling methods* | Johns Hopkins School of Public Health | Co-Instructor; 19 students; 2 credits |
| Fall 2019 | PubH 3107: Global Public Health & the Environment*Overview of air pollution and public health* | UMN School of Public Health | Sole Instructor58 students; 2 credits |
| Fall 2019 | PH601.731.86: Spatial Analysis for Public Health*GIS and ozone air pollution impacts* | Johns Hopkins School of Public Health | Co-Instructor; 4 credits |
| Spring 2019 | PubH 8120: Occupational Health & Safety Research Seminar*Successfully attending scientific conferences* | UMN School of Public Health | Sole Instructor24 students; 1 credit |
| Spring 2019 | PH7309: GIS and Public Health*Geostatistics and air pollution* | SUNY Albany School of Public Health | Sole Instructor25 students; 4 credits |
| Spring 2019 | PH601.805.86: Spatial Analysis Journal Club*Air pollution modeling methods* | Johns Hopkins School of Public Health | Co-Instructor; 2 credits |
| Fall 2018 | PubH 8120: Occupational Health & Safety Research Seminar *Overview of air pollution and violence* | UMN School of Public Health | Sole Instructor23 students; 1 credit |
| Fall 2018 | PH601.731.86: Spatial Analysis for Public Health*GIS and ozone air pollution impacts* | Johns Hopkins School of Public Health | Co-Instructor; 4 credits |
| Spring 2018 | W272B 001: Applied GIS for Public Health Practice*Intro to GIS and applied spatial methods* | University of California at Berkeley School of Public Health | Co-Instructor; 17 students; 3 credits |
| Spring 2018 | PubH 6100-003: Topics in Environmental Health: Science Politics and Policy.*Air pollution exposure measures* | UMN School of Public Health | Sole Instructor40 students; 3 credits |
| Spring 2018 | PH601.805.86: Spatial Analysis Journal Club*Air pollution modeling methods* | Johns Hopkins School of Public Health | Co-Instructor; 2 credits |
| Fall 2017 | PH601.731.86: Spatial Analysis for Public Health*GIS and ozone air pollution impacts* | Johns Hopkins School of Public Health | Co-Instructor; 4 credits |

## Professional Development in Teaching

Spring 2019 “Write Winning NIH Grant Proposals.” Grants Writers Seminars and Workshops

Fall 2018 “Becoming an Instructor of Record.” University of Minnesota Center for Educational Innovation

# ADVISING AND MENTORING

## University of Minnesota

**Graduate Student Activities**

|  |  |  |  |
| --- | --- | --- | --- |
| **Student** | **Degree** | **Role** | **Year Finished** |
| Sarah Eckerman | MPH | Committee Member | 2018 |
| Jacob Anderson | MPH | Committee Member | 2018 |
| Natalie Bontrager | MPH | Committee Member | 2019 |
| Yuko Ekyalongo | MPH | Project Advisor | 2019 |
| Hannah Young | MPH | Project Advisor | 2020 |
| Austin Rau | MPH | Academic and Project Advisor | 2020 |
| Maya Rivera | MPH | Committee Member | 2021 |
| Corina Tibbitts | MPH | Committee Member | Active |
| Zachary Zirnhelt | MPH | Project Advisor | Active |
| Jaime Rich | MPH | Academic Advisor | Active |
| Gabrielle Johnson | MPH | Academic Advisor | Active |
| Cecilia Pigozzi | MS | Academic and Project Advisor | 2021 |
| Mito Imagawa | MS | Project Advisor | Active |
| Morrison ‘Luke’ Smith | PhD | Advisor | Active |
| Austin Rau | PhD | Advisor | Active |
| Vu Thuy Huong Le | PhD | Co-Advisor | Active |
| Yan Li | PhD | Committee Member | Active |
| Alyson Harding | PhD | Committee Member | Active |

**Postdoctoral Advising**

|  |  |  |  |
| --- | --- | --- | --- |
| **Advisee** | **Funding Support** | **Role** | **Year Finished** |
| Amanda Gorton, PhD | Grand Challenges in Biology Fellow | Postdoctoral Advisor | Active |
| Camille Robichaux, MD | Lung Biology T32 Postdoctoral Trainee | Postdoctoral Advisor | Active |

# SERVICE AND PUBLIC OUTREACH

**Service to The Discipline/Profession/Interdisciplinary Area(s)**

## Journal Editorships

## Guest Editor. International Journal of Environmental Research & Public Health (2019-2020)

## Special Issue on ‘GIS and Spatial Modeling for Environmental Epidemiology’

## Journal Reviewer Experience

American Journal of Epidemiology 2018-Present

Atmosphere 2020-Present

Atmospheric Environment 2013-Present

BMJ Open 2018-Present

Climatic Research 2021-Present

Disaster Medicine & Public Health Research 2019-Present

Environmental Health 2014-Present

Environmental Health Perspectives 2012-Present

Environmental Pollution 2020-Present

Environment International 2021-Present

Environmental Research 2016-Present

Environmental Science and Technology 2014-Present

Environmental Science and Technology Letters 2020-Present

International Journal of Biometeorology 2019-Present

International Journal of Environmental Research & Public Health 2105-Present

International Journal of Epidemiology 2020-Present

International Journal of Geo-Information 2020-Present

Journal of the American Medical Association 2019-Present

JAMA Network Open 2021-Present

Journal of Clinical & Translational Science 2019-Present

Journal of Exposure Science & Environmental Epidemiology 2019-Present

Journal of Research in Crime and Delinquency 2020-Present

Journal of Urban Health 2020-Present

The Lancet Planetary Health 2018-Present

Nature Climate Change 2014-Present

Paediatric and Perinatal Epidemiology 2020-Present

PLOS Computational Biology 2020-Present

PLOS One 2015-Present

Population Health 2021-Present

Remote Sensing 2019-Present

Science of the Total Environment 2015-Present

2017 Outstanding Reviewer (top 10th percentile)

## Book Publishing Reviewer Experience

Springer Books: Authored Monographs 2019-Present

## Review Panels for External Funding Agencies

## The India Alliance: Early Career Fellowship Awards 2019-Present

NIH National Eye Institute: Pathway to Independence K99 2021-Present

# Service to The University/College/Department

## University of Minnesota

**University-wide service**

*Grant Peer Reviewer*. Minnesota Population Center, 2020

*Scientiﬁc Review Board*. Pilot Projects Research Training Program Midwest Center for Occupational Health & Safety, 2017-Present

*Member*. Minnesota Population Center, 2019-Present

*Review Board.* President’s Postdoctoral Fellowship Program, 2018-Present

*Member.* Exposure Science & Sustainability Institute [ESSI]. University of Minnesota, 2017- Present

# Service to the School of Public Health

*Member*. Diversity Equity and Inclusion Action Alignment Team, 2021

*Committee Member*. Climate Change and Health Minor Program Development Group, 2020

*Search Committee Member*. Associate Dean of Faculty Affairs, 2020

*Abstract Reviewer*. Judging Committee for School of Public Health Research Day, 2019

*Committee Member*. Committee on Training in Public Health Informatics

# Division Service to Environmental Health Sciences

*Member*. EnHS Vision Committee, 2021

*Search Committee Member*. EnHS Division Chair Search, 2021

*Committee Member*. EnHS Recruitment Strategy Group, 2020

*Search Committee Member*. Global Food Ventures Assistant Professor Faculty Search, 2019

*Search Committee Member*. Global Food Ventures Associate/Full Professor Faculty Search, 2019

*Committee Member*. Climate Change and Health Concentration Exploratory Group, 2019

“Why Minnesota?” Presentation to prospective students in Environmental Health Sciences, University of Minnesota, 2019

“Why Minnesota?” Presentation to prospective students in Environmental Health Sciences, University of Minnesota, 2018

## Johns Hopkins School of Public Health

**Collegiate Service**

*Affiliated Member.* Spatial Science for Public Health Center. Johns Hopkins Bloomberg School of Public Health, 2017-Present

*Treasurer*, Environmental Health Sciences Student Organization, 2009-2012

# Public (Non-University) and Other Service

## Service to the State of Minnesota

## External Peer Reviewer. “Life and Breath Report.” Minnesota Department of Health and Minnesota Pollution Control Agency, 2019

## Service at the National Level

## Committee Member. Drought and Public Health Advisory Commission. National Integrated Drought Information Systems Midwest Regional planning group, 2019

## Service to Private Entities

## Epidemiological Consultant. Unpaid advice and guidance on re-opening during the COVID-19 pandemic. Boulder Outdoor Survival School (BOSS), Boulder, Utah. Spring 2020.