

SCHOLARSHIP

Peer-reviewed Publications (Listed in Reverse Chronological Order; * Indicates Student Authors)

1. Sanjel S, Khanal SN, Thygerson SM, Carter WS, **Johnston JD**, Joshi SK (2017). Respiratory symptoms and illnesses related to the concentration of airborne particulate matter among brick kiln workers in Kathmandu Valley, Nepal. *Annals of Occupational and Environmental Medicine*. 29(9). doi: 10.1186/s40557-017-0165-0
2. **Johnston JD**, Kruman BA*, Nelson MC*, Merrill RM, Graul RJ*, Hoybjerg TG*, Tuttle SC*, Myers SJ*, Cook RB*, Weber KS (2017). Differential effects of air conditioning type on residential endotoxin levels in a semi-arid climate. *Indoor Air*. doi: 10.1111/ina.12369
3. **Johnston JD**, Barney T*, Crandall J*, Brown M*, Westover T*, Paulson S*, Smith M*, Weber KS (2017). Prevalence of house dust mite allergens in low-income homes with evaporative coolers in a semi-arid climate. *Archives of Environmental and Occupational Health*. doi: 10.1080/19338244.2017.1282846
4. Sloan CD, Weber FX, Bradshaw RK*, Philipp TJ*, Barber WB*, Palmer VL*, Graul RJ*, Tuttle SC*, Chartier RT, **Johnston JD** (2016). Elemental analysis of infant airborne particulate exposures. *Journal of Exposure Science & Environmental Epidemiology*. doi:10.1038/jes.2016.77
5. **Johnston JD**, Merrill RM, Zimmerman GC*, Collingwood SC, Reading JC (2016). Factors associated with biosafety level-2 research workers' laboratory exit hand washing behaviors and glove removal compliance. *Journal of Occupational and Environmental Hygiene*, 13:4, 254-264.
6. **Johnston JD**, Tuttle SC*, Nelson MC*, Bradshaw RK*, Hoybjerg TG*, Johnson JB*, Kruman BA*, Orton TS*, Cook RB*, Eggett DL, Weber KS (2016). Evaporative cooler use influences temporal indoor relative humidity but not dust mite allergen levels in homes in a semi-arid climate. *PLoS ONE*, 11:1, e0147105. doi:10.1371/journal.pone.0147105
7. Sloan CD, Philipp TJ*, Bradshaw RK*, Chronister S*, Barber WB*, **Johnston JD** (2016). Applications of GPS-tracked personal and fixed-location PM_{2.5} continuous exposure monitoring. *Journal of the Air & Waste Management Association*, 66:1, 53-65.
8. **Johnston JD**, Magnusson BM, Eggett DL, Collingwood SC, Bernhardt SA (2015). Comparison of single-point and continuous sampling methods for estimating residential indoor temperature and humidity. *Journal of Occupational and Environmental Hygiene*, 12:11, 785-794.
9. **Johnston JD**, Eggett D, Johnson MJ, Reading JC (2014). The influence of risk perception on biosafety level-2 laboratory workers' hand-to-face contact behaviors. *Journal of Occupational and Environmental Hygiene*, 11:9, 625-632.
10. **Johnston JD**, Magnusson BM, Eggett D, Mumford K, Collingwood SC, Bernhardt SA (2014). Sensor drift and predicted calibration intervals of handheld temperature and relative humidity meters under residential field-use conditions. *Journal of Environmental Health*, 77(3), 22-28.

11. **Johnston JD**, Thygerson SM, Johnson MJ, Reading JC (2013). Hand washing quality among biosafety level 2 research laboratory workers. *Applied Biosafety*, 18(3), 116-121.
12. Ashton C*, Bernhardt SA, Lowe M, Mietchen M, **Johnston JD** (2012). Comparison of HIV/AIDS rates between U.S.-born blacks and African-born blacks in Utah, 2000 – 2009. *Open AIDS J*, 6(Suppl 1: M13), 170-176.
13. Chessin SJ, **Johnston JD**. (2002). Thermal loading as a causal factor in exceeding the 0.1 PPM laboratory fume hood control level. *Applied Occupational and Environmental Hygiene*, 17(7), 512-518.
14. **Johnston JD**, Chessin SJ, Chesnovar BW, Lillquist DR. (2000). The effect of thermal loading on laboratory fume hood performance. *Applied Occupational and Environmental Hygiene*, 15(11), 863-868.

Submitted Papers

Sanjel S, Khanal SN, Thygerson SM, Carter WS, **Johnston JD**, Joshi SK. Exposure to respirable silica among clay brick workers in Kathmandu valley, Nepal. *Archives of Environmental and Occupational Health*. (Under Review)

Davis SF*, **Johnston JD**, Magnusson BM, Novilla ML, Torgersen BK*, Schnell AJ*, Crandall A. Predictors of radon testing among Utah residents using a theory-based approach. *Journal of Environmental Health*. (Under Review)

Chaney RA, Sloan CD, Cooper VC*, Robinson DR*, Hendrickson NR*, McCord TA*, **Johnston JD**. Personal exposure to fine particulate air pollution while commuting: An examination of six transport modes on an urban arterial roadway. *PLoS ONE*. (Submitted)

Non Peer-Reviewed Publications

Sloan CD, **Johnston JD**. (2016). Can extreme air pollution events provide a window into incident asthma? *American Journal of Respiratory Critical Care Medicine*, 194(12): 1440-1441.

Oral Presentations

Johnston JD. (2016). Dust mite prevalence in Utah's semi-arid climate. Utah Environmental Health Association Spring Conference, Springdale, UT.

Johnston JD, Bernhardt SA, Magnusson BM, Eggett D, Collingwood SC. (2015). Representativeness of single-point sampling for estimating residential indoor air temperature and relative humidity. American Industrial Hygiene Conference and Exposition, Salt Lake City, UT.

Johnston JD, Eggett D, Johnson MJ, Reading JC. (2014). Factors influencing hand-to-face contact among biosafety level-2 research laboratory workers. American Industrial Hygiene Conference and Exposition, San Antonio, TX.

Johnston JD, & Johnson MJ (2011). Quality of hand-washing among biosafety level-2 laboratory workers. Presented at the 54th Annual Conference of the American Biological Safety Association, Anaheim, CA.

Johnston JD, Reading JC, Johnson MJ, & Richardson GE (2010). Hand hygiene in the biosafety level-2 lab: Is it a matter of training? Presented at the 53rd Annual Conference of the American Biological Safety Association, Denver, CO.

Johnston JD, Trunnell EP. (2006). An interdisciplinary approach to biological safety training. Presented at the 49th Annual Conference of the American Biological Safety Association, Boston, MA.

Chessin SJ, **Johnston JD**, Stephenson D, & Lillquist DR. (2000). The effect of thermally hot operations on fume hood performance: A tracer gas analysis. Presented at the American Industrial Hygiene Association Conference, Orlando, FL.

Poster Presentations (Listed in Reverse Chronological Order; * Indicates Student Authors)

Palmer V*, Nielsen N*, Cox A*, Bradshaw B*, Brown M*, Barney T*, Graul R*, Torgersen B*, Tuttle C*, Thacker E, **Johnston JD**. (2016). Development of a model to predict preadolescent children's indoor PM₁₀ exposures. NEHA 2016 AEC and HUD Healthy Homes Conference, San Antonio, TX.

Graul RJ*, Tuttle SC*, Kruman BA*, Nelson MC*, Hoybjerg TG*, Meyers S*, Cook RB*, Eggett DL, Weber KS, **Johnston JD**. (2016). Differences in indoor dust endotoxin levels based on type of air conditioning in homes in a semi-arid climate. NEHA 2016 AEC and HUD Healthy Homes Conference, San Antonio, TX.

Brown M*, Barney T*, Westover T*, Paulson S*, Smith M*, Crandall J*, Weber KS, **Johnston JD**. (2016). Dust mite allergens in low-income homes with evaporative coolers in a semi-arid climate. NEHA 2016 AEC and HUD Healthy Homes Conference, San Antonio, TX.

Davis SF*, Cox AL*, Magnusson BM, Crandall A, Jensen A, Larsen B, Torgersen BK*, **Johnston JD**. (2016). Factors influencing radon testing behaviors among Utah County residents. NEHA 2016 AEC and HUD Healthy Homes Conference, San Antonio, TX.

Hoybjerg T*, Christiansen M*, Myers S*, Kruman B*, **Johnston JD**, and Weber KS. (2015). Development of sensitive Limulus Amebocyte Lysate assay to quantify endotoxin levels in Utah homes with and without swamp coolers. 9th Annual Utah Conference on Undergraduate Research. February 27th 2015. St. George Utah.

Christiansen M*, Hoybjerg T*, Cook R*, **Johnston JD**, and Weber KS. (2015). Comparison of dust mite antigen levels in Utah homes with swamp coolers versus homes with air conditioning. 9th Annual Utah Conference on Undergraduate Research. February 27th 2015. St. George Utah.

Johnston JD, Bernhardt SA, Magnusson BM, Eggett D, Collingwood SC. (2014). Comparison of continuous and single-point measurement of residential temperature and relative humidity. 78th National Environmental Health Association Annual Educational Conference, Las Vegas, NV.

Wahlquist B*, Kruman B*, Weber KS, **Johnston JD**. (2014). The effect of evaporative coolers on indoor relative humidity and dust mite allergens in Utah homes. 8th Annual Utah Conference on Undergraduate Research, Provo, UT.

Campbell E*, Johnson J*, **Johnston JD**, Weber KS. (2014). Development of sensitive ELISA and qPCR assays to quantitate levels of dust mite antigens in homes in Utah with and without swamp coolers. 8th Annual

Utah Conference on Undergraduate Research, Provo, UT.

Johnston JD, Johnson MJ. (2010). Hand-to-face contact as a route of transmission in the biosafety level 2 laboratory. Also an Abstract Published in Proceedings of the 53rd Annual American Biological Safety Association Conference, 53. Poster session presented at Proceedings of the 53rd Annual American Biological Safety Association Conference, Denver, CO.

Johnson MJ, **Johnston JD**. (2010). Evaluating glove use in the biosafety level-2 research laboratory. Also an Abstract Published in Proceedings of the 53rd Annual American Biological Safety Association Conference, 52. Poster session presented at 53rd Annual American Biological Safety Association Conference, Denver, CO.

Invited Presentations

Johnston JD. (2016). House dust mites in Utah's semi-arid Climate? Utah Asthma Task Force, June 2016. Utah Department of Health, Salt Lake City, UT.

Johnston JD, Davis SF*, Magnusson BM, Novilla L, Torgersen BK*, Gunn A*. (2016). Radon knowledge, attitudes, and testing among Utah County residents. EPA Region 8 Radon Stakeholders Conference, Utah Department of Environmental Quality, Salt Lake City, Utah.

Johnston JD. (2008). Institutional Biosafety Committee Basics. Society of Research Administrators International – Western Section Conference, Denver, CO.

External Funding Applications/Awards

FR-6100-N-15. US Department of Housing and Urban Development, Healthy Homes Technical Studies Grant (2017). \$605,264. Pre and post-assessment of bioaerosols and traffic-related particulate matter constituents associated with evaporative cooler change-out in low-income homes. Role: Principal Investigator. (Submitted)

Salt Lake County, Community Resources & Development (2016). \$22,974 contract. Indoor environmental quality assessments for Salt Lake County (SLCo), Community Resources & Development, Green and Healthy Homes Initiative (GHHI). Role: Principal Investigator. (Under Review)

NIH, National Institute of Child Health & Human Development (2012). \$285,875 contract (#HHSN275200800027C), sub-award agreement between University of Utah and Utah State University. Quality Assurance, Quality Control, and Availability of Materials for the National Children's Study. Sub-award Contract #10009468-1. Role: Co-Investigator (20%). (Funded)

Internal Funding Applications/Awards

Charles Redd Center, Butler Young Scholar Award (2017). \$24,000. Studies in Western American Housing and Health. Role: Principal Investigator. (Not Funded).

Charles Redd Center, Annaley Naegle Redd Assistantship Award (2016). \$12,000. Factors associated with the presence of house dust mites *Dermatophagoides pteronyssinus* and *D. farinae* and their allergens in Utah homes. Role: Principal Investigator. (Not Funded).

Douglas C. Heiner Research Gift (2014). \$11,000. Efficacy of high-volume dehumidification to reduce allergen levels in the homes of allergic subjects. Role: Principal Investigator. (Funded).

College of Life Sciences Start-up Grant (2014). \$20,000. (Funded)

College of Life Sciences Start-up Grant (2013). \$20,000. (Funded)

College of Life Sciences Start-up Grant (2012). \$20,000. (Funded)

Media Features on Research Projects

BYU Radio, Matt Townsend Show live interview on dust mite allergens in Utah County homes, June 2, 2016. <http://www.byuradio.org/episode/ffedd537-d4cc-45e9-87b1-f5bc139c7ad9/the-matt-townsend-show-the-abolitionists-war-on-soda-allergies-and-dust-mites?playhead=6580&autoplay=true>

Research from BYU suggests Utah County's climate makes dust mites less of a concern. KSTU FOX 13 News, May 11, 2016. <http://fox13now.com/2016/05/11/research-from-byu-suggests-utah-countys-climate-makes-dust-mites-less-of-a-concern/>

Are dust mites really a problem in Utah? A new study done by BYU says no. ABC 4 News, May 9, 2016. <http://www.good4utah.com/news/top-stories/are-dust-mites-really-a-problem-in-utah>

New BYU study shows low numbers of dust mites in Utah County homes. KSL NewsRadio. May, 2016. <https://audioboom.com/boos/4549098-new-byu-study-shows-low-numbers-of-dust-mites-in-utah-county-homes>

BYU News Feature on house dust mite research and publication. May 6, 2016. <https://news.byu.edu/news/dust-mites-invading-your-mattress-maybe-not-say-byu-researchers>

CITIZENSHIP

BYU Department of Health Science Committees

1. Faculty Search Committee. Member. (2016 – 2017)
2. Merit Pay Committee. Member (2016 – 2017)
3. Undergraduate Curriculum & Learning Committee. Member. (2013 – 2017)
4. MPH Admissions Committee. Member (2016)
5. Student Scholarships Committee. Member. (2013 – 2016)
6. Merit Pay Committee. Member. (2013 – 2014)
7. MPH Admissions Committee. Member. (2013)

BYU College of Life Sciences Committees

1. Mentoring Environment Grant (MEG) Committee. Member. (2013, 2014)
2. Undergraduate ORCA Grant Reviewer. (2012)

University Committees

1. Institutional Biosafety Committee (IBC). Brigham Young University, Office of Research and Creative Activities. Member. (2013 – 2016)
2. Research Compliance Committee. University of Utah, Office of Research Administration. Member (2004 – 2010)
3. Emergency Operations Center, University of Utah. Safety Officer. (2010)

Professional Associations/Committees

1. International Society of Indoor Air Quality and Climate
Member (2017)
2. American Industrial Hygiene Association
Vice Chair, Indoor Environmental Quality Committee (2016 – 2017)
Secretary, Indoor Environmental Quality Committee (2015 – 2016)
Secretary-elect, Indoor Environmental Quality Committee (2014 – 2015)
Member (2011 – Present)
3. National Environmental Health Association
Member (2011 – Present)
4. Utah Section, American Industrial Hygiene Association
Member (2013 – Present)
5. Utah County Household Hazardous Waste Committee
Member (2015 – Present)
6. American Biological Safety Association
Member (2004 – 2016)

Editorial Appointments

Reviewer, *Applied Biosafety*: 2013 – present

Reviewer, *Journal of Environmental Health*: 2013 – present

Reviewer, *Biomedical and Environmental Sciences*: 2017

TEACHING

University Courses

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| 2015 - 2017 | Sampling & Exposure Assessment (HLTH 428), Brigham Young University. |
| 2012 - 2017 | Environmental Health (HLTH 322), Brigham Young University. |
| 2012 - 2014 | Disaster Response and Emergency Preparedness (HLTH 422), Brigham Young University. |
| 2008 - 2010 | Foundations and Theories of Health Promotion (HEDU 6000), University of Utah. |

Graduate Committees

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| 2014 – Present | Siena Davis, MPH (member). Brigham Young University, Department of Health Science. |
| 2013 – 2015 | Robin Ellis, MPH (member). Brigham Young University, Department of Health Science. |
| 2013 – 2015 | Andrew Chalmers, MPH (Chair). Brigham Young University, Department of Health Science. |
| 2012 – 2014 | Ali Hatch, MPH (Chair). Latter-day Saint Charities: <i>Wheelchair initiative partner evaluation and monitoring system</i> , Brigham Young University, Department of Health Science. |
| 2012 – 2014 | David Vance, MPH (member). <i>Intermountain Healthcare: Risk assessment, stratification, and workflow</i> , Brigham Young University, Department of Health Science. |

- 2012 - 2014 Martha Keyes, MPH (member). *The association between demographic indicators, community health worker interaction, and health knowledge and behavior among Bandhan microfinance clients*, Brigham Young University, Department of Health Science.
- 2010 - 2011 Kimberly Judd, Masters Committee (member). *Breast Cancer Prevention and Early Detection Knowledge and Practice*, University of Utah, Department of Health Promotion & Education.
- 2010 - 2011 Crystal Ashton, Masters Committee (member). *HIV Among African-born Utah Residents*, University of Utah, Department of Health Promotion & Education.

Training Courses Taught

- 10/2014 Factors influencing hand hygiene in the biosafety level-2 (BSL-2) laboratory. 31st Annual Utah Conference on Safety and Industrial Hygiene, Salt Lake City, UT.
- 2011 - 2012 Essentials for Healthy Homes Practitioners. National Center for Healthy Housing, CDC.
- 2004 - 2010 Bloodborne Pathogens. University of Utah, Department of Environmental Health & Safety.
- 2009 - 2010 Biosafety Level-2 Laboratory Safety. University of Utah, Department of Environmental Health & Safety.

SCHOLASTIC HONORS

- 2010 Robert I Gross Memorial Award, American Biological Safety Association, 53rd Annual Biological Safety Conference, Denver, CO.
- 2006 Jack Lunt Foundation Scholarship, Department of Health Promotion & Education, University of Utah, Salt Lake City, UT.
- 2000 Golden Pump Award, Rocky Mountain Center for Occupational and Environmental Health, University of Utah, Salt Lake City, UT.
- 1998 Microbiology Service Award, Department of Microbiology, Weber State University, Ogden, UT.
- 1998 - 2000 Industrial Hygiene Graduate Fellowship, U.S. Department of Energy, Oak Ridge Institute for Science and Education, Oak Ridge, TN.
- 1997 Microbiology Activities Scholarship, Department of Microbiology, Weber State University, Ogden, UT.