

CURRICULUM VITAE

Hyeong-Moo Shin, Ph.D.

Assistant Professor

Department of Earth and Environmental Sciences

University of Texas, Arlington

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EDUCATION

2007-2011	University of California, Irvine	Ph.D., Environmental Health Sciences
2005-2007	Carnegie Mellon University, Pittsburgh	M.S., Environmental Engineering
1999-2005	Yonsei University, South Korea	B.S., Environmental Engineering

APPOINTMENTS AND POSITIONS

2016-	Assistant Professor (tenure-track) Department of Earth and Environmental Sciences, University of Texas, Arlington
2011-2016	Postdoctoral Researcher Department of Public Health Sciences, University of California, Davis
2007-2011	Graduate Research Assistant Concentration in Epidemiology and Public Health, University of California, Irvine

RESEARCH INTERESTS

- Fate and Transport of Contaminants
- Biomarkers
- Chemical Screening and Prioritization
- Children's Health
- Exposure and Risk Assessment
- Environmental Epidemiology
- Sensitivity and Uncertainty analysis
- Air Pollution

PEER-REVIEWED PUBLICATIONS

Published/Accepted

- 2017 1. **Shin HM**, McKone TE, Bennett DH. 2017. Model Framework for Integrating Multiple Exposure Pathways to Chemicals in Household Cleaning Products. *Indoor Air* 27:829-839.
- 2016 2. Avanası R, **Shin HM**, Vieira VM, Bartell SM. 2016. Impact of Geocoding Uncertainty on Reconstructed PFOA Exposures and Their Association with Preeclampsia. *Environmental Research* 151: 505-512.
3. Darrow LA, Groth AC, Winquist A, **Shin HM**, Bartell SM, Steenland K. 2016. Modeled Perfluorooctanoic Acid Exposure and Liver Function in a Mid-Ohio Valley Community. *Environmental Health Perspectives* 124(8):1227-1233.
4. **Shin HM**, McKone TE, Bennett DH. 2016. Volatilization of Low Vapor Pressure - Volatile Organic Compounds (LVP-VOCs) during Three Cleaning Products-Associated Activities: Potential Contributions to Ozone Formation. *Chemosphere* 153:130-137.

5. Avanası R, **Shin HM**, Vieira VM, Bartell SM. 2016. Variability and Epistemic Uncertainty in Water Ingestion Rates and Pharmacokinetic Parameters, and Impact on the Association between Perfluorooctanoate and Preeclampsia in the C8 Health Project Population. *Environmental Research* 146:299-307
6. Avanası R, **Shin HM**, Vieira VM, Savitz DA, Bartell SM. 2016. Impact of Exposure Uncertainty on the Association between Perfluorooctanoate and Preeclampsia in the C8 Health Project Population. *Environmental Health Perspectives* 124(1):126-132.
7. Hodas N, Loh M, **Shin HM**, Li D, Bennett DH, McKone TE, Jolliet O, Weschler CJ, Jantunen M, Lioy P, Fantke P. 2016. Indoor Inhalation Intake Fractions of Fine Particulate Matter: Review of Influencing Factors. *Indoor Air* 26:836-856.
- 2015 8. **Shin HM**, Ernstoff A, Arnot JA, Wetmore BA, Csiszar S, Fantke P, Zhang X, McKone TE, Jolliet O, Bennett DH. 2015. Risk-based High-Throughput Chemical Screening and Prioritization using Exposure Models and *In Vitro* Bioactivity Assays. *Environmental Science & Technology* 49(11):6760-6771.
9. **Shin HM**, McKone TE, Bennett DH. 2015. Contribution of Low Vapor Pressure-Volatile Organic Compounds (LVP-VOCs) from Consumer Products to Ozone Formation in Urban Atmospheres. *Atmospheric Environment* 108:98-106
- 2014 10. **Shin HM**, McKone TE, Bennett DH. 2014. Attributing Population-Scale Human Exposure to Various Source Categories: Merging Exposure Models and Biomonitoring Data. *Environment International* 70:183-191.
11. **Shin HM**, Steenland K, Ryan PB, Vieira VM, Bartell SM. 2014. Biomarker-Based Calibration of Retrospective Exposure Predictions of Perfluorooctanoic Acid. *Environmental Science & Technology* 48(10):5636-5642.
12. **Shin HM**, McKone TE, Sohn MD, Bennett DH. 2014. Tracking Contributions to Human Body Burden of Environmental Chemicals by Correlating Environmental Measurements with Biomarkers. *PLoS ONE* 9(3):e93678.
13. Mondal D, Weldon RH, Armstrong B, Gibson L, Lopez MJ, **Shin HM**, Fletcher T. 2014. Breastfeeding: A Potential Excretion Route for Mothers and Implications for Infant Exposure to Perfluoroalkyl Acids. *Environmental Health Perspectives* 122(2):187-192.
14. **Shin HM**, McKone TE, Nishioka MG, Fallin MD, Croen LA, Hertz-Picciotto I, Newschaffer CJ, Bennett DH. 2014. Determining Source Strength of Semivolatile Organic Compounds using Measured Concentrations in Indoor Dust. *Indoor Air* 24:260-271.
- 2013 15. Winquist A, Lally C, **Shin HM**, Steenland K. 2013. Design, Methods, and Population for a Study of PFOA Health Effects among Highly Exposed Mid-Ohio Valley Community Residents and Workers. *Environmental Health Perspectives* 121(8):893-899.
16. Watkins DJ, Josson J, Elston B, Bartell SM, **Shin HM**, Vieira VM, Savitz DA, Fletcher T, Wellenius GA. 2013. Exposure to Perfluoroalkyl Acids and Markers of Kidney Function among Children and Adolescents Living near a Chemical Plant. *Environmental Health Perspectives* 121(5):625-630.

17. **Shin HM**, McKone TE, Bennett DH. 2013. Evaluating Environmental Modeling and Sampling Data with Biomarker Data to Identify Sources and Routes of Exposure. *Atmospheric Environment* 69:148-155.
18. Vieira VM, Hoffman K, **Shin HM**, Weinberg, J, Webster TF, Fletcher T. 2013. Perfluorooctanoic Acid Exposure and Cancer Outcomes in a Contaminated Community: A Geographic Analysis. *Environmental Health Perspectives* 121(3):318-323.
19. **Shin HM**, McKone TE, Tulse NS, Clifton MS, Bennett DH. 2013. Indoor Residence Times of Semivolatile Organic Compounds: Model Estimation and Field Evaluation. *Environmental Science & Technology* 47(2):859-867.
- 2012 20. **Shin HM**, McKone TE, Bennett DH. 2012. Intake Fraction for the Indoor Environment: A Tool for Prioritizing Indoor Chemical Sources. *Environmental Science & Technology* 46(18):10063-10072.
21. Savitz DA, Stein CR, Elston B, Wellenius G, Bartell SM, **Shin HM**, Vieira VM, Fletcher T. 2012. Relationship of Perfluorooctanoic Acid Exposure to Pregnancy Outcome based on Birth Records in the Mid-Ohio Valley. *Environmental Health Perspectives* 120(8):1201-1207.
22. Savitz DA, Stein CR, Bartell SM, Elston B, Gong J, **Shin HM**, Wellenius G. 2012. Perfluorooctanoic Acid Exposure and Pregnancy Outcome in a Highly Exposed Community. *Epidemiology* 23(3):386-392.
23. **Shin HM**, Ryan PB, Vieira VM, Bartell SM. 2012. Modeling the Air-Soil Transport Pathway of Perfluorooctanoic Acid in the Mid-Ohio Valley using Linked Air Dispersion and Vadose Zone Models. *Atmospheric Environment* 51:67-74.
- 2011 24. **Shin HM**, Vieira VM, Ryan PB, Steenland K, Bartell SM. 2011. Retrospective Exposure Estimation and Predicted versus Observed Serum Perfluorooctanoic Acid Concentrations for Participants in the C8 Health Project. *Environmental Health Perspectives* 119(12):1760-1765.
25. **Shin HM**, Vieira VM, Ryan PB, Detwiler RL, Sanders BF, Steenland K, Bartell SM. 2011. Environmental Fate and Transport Modeling for Perfluorooctanoic Acid Emitted from the Washington Works Facility in West Virginia. *Environmental Science & Technology* 45(4):1435-1442.

Submitted/In preparation

1. **Shin HM**, Bennett DH, Barkoski J, Ye X, Calafat AM, Tancredi D, Hertz-Picciotto I. Variability of Urinary Concentrations of Phthalate Metabolites during Pregnancy in First Morning Voids and Pooled Samples. (Under revision)
2. Fantke P, Aylward L, Bayliss C, Brown R, Dodson R, Dwyer R, Ernstoff A, Gouin T, Huijbregts M, Isaacs K, Jantunen M, Jolliet O, Kirchhübel N, Mason A, Miller A, Molin D, Paoli G, Price P, Rhomberg L, Shen B, **Shin HM**, Teeguarden J, Vallero D, van de Meen D, Wetmore B, Zaleski R, McKone TE. Advancements in Life Cycle Human Exposure and Toxicity Characterization. (Under revision)

3. **Shin HM**, Schmidt R, Tancredi D, Barkoski J, Bennett DH, Hertz-Picciotto I. Prenatal Exposure to Phthalates and Risk for Autism Spectrum Disorders in the MARBLES Study. (Under revision)
4. Ring CL, Amot J, Bennett DH, Egeghy PP, Fantke P, Huang L, Isaacs KK, Jolliet O, **Shin HM**, Phillips KA, Westgate J, Setzer RW, Wambaugh JF. Chemical Exposure Pathway Prediction for Screening and Priority-Setting. (Under revision)
5. **Shin HM**, Kim K, Bennett DH. Use of Indoor Dust Levels to Reconstruct Exposure to Semivolatile Organic Compounds in the Indoor Environment: Evaluation with NHANES Biomarkers. (Under review)
6. **Shin HM**, Moschet C, Young TM, Bennett DH. New Insights into Human Exposure to Consumer Product Chemicals from Comprehensive Chemical Profiles of Indoor Dust. (In preparation)
7. **Shin HM**, Tancredi D, Calafat A, Bennett DH, Hertz-Picciotto I. Exposure to Perfluorinated Compounds and Risk for Autism Spectrum Disorders in the CHARGE Study. (In preparation)
8. Granillo L, Barkoski J, Krakowiak P, **Shin HM**, Walker CK, Tancredi DJ, Bennett, D, Schmidt RJ. Reliability and Validity of Environmental Exposures during Pregnancy in Autism Studies. (In preparation)
9. Krakowiak P, **Shin HM**, Tancredi DJ, Slupsky CM, Hertz-Picciotto I, Walker CK. Influence of Phthalate Exposure on Maternal Metabolic Clinical Phenotype. (In preparation)
10. Krakowiak P, Tancredi DJ, Slupsky CM, **Shin HM**, Hertz-Picciotto I, Walker CK. Phthalate Effects on the Maternal Serum Metabolome. (In preparation)
11. Krakowiak P, **Shin HM**, Tancredi DJ, Slupsky CM, Hertz-Picciotto I, Walker CK. Maternal Clinical Phenotype Mediates the Relationship between Prenatal Phthalate Exposures and Autism Spectrum Disorders. (In preparation)
12. Krakowiak P, **Shin HM**, Tancredi DJ, Slupsky CM, Hertz-Picciotto I, Walker CK. Neurodevelopmental Fetal Programming In Response to Phthalate Exposure via the Maternal Serum Metabolome. (In preparation)

OTHER PUBLICATIONS

1. **Shin HM**, McKone TE, Bennett DH. 2015. Environmental Fate of Low Vapor Pressure – Volatile Organic Compounds from Consumer Products: A Modeling Approach. Final report for the California Air Resources Board. Sacramento, CA.

GRANT SUPPORT

Active

1. R21-ES028131 (PI: **Shin**)
NIH/NIEHS 9/1/2017 - 8/31/2019
Total costs: \$436,273
Title: Exposure to Perfluorinated Compounds and Risk for Autism Spectrum Disorders

Goal: (1) Determine whether exposure to PFCs at an early developmental stage is associated with risk for ASD, (2) Evaluate associations between exposure sources and modifiers obtained in questionnaire and medical records and individual PFC serum measurements, and (3) Develop a pharmacokinetic model using MARBLES prospective measurements to reconstruct PFC exposure levels during pregnancy and breastfeeding periods for CHARGE participants. **Role:** PI

Completed

2. R835641 (PI: Bennett)
Environmental Protection Agency

7/1/2014 - 8/31/2018
Total costs: \$900,000

Title: Tracking Semivolatile Organic Compounds Indoors: Merging Models and Field Sampling to Assess Concentrations, Emissions, and Exposures

Goal: (1) Measure concentrations of a broad spectrum of target and non-target semivolatile organic compounds (SVOCs) in indoor dust to estimate emission rates and exposures, (2) refine and evaluate a multi-compartment indoor fate, transport, and exposure model, and (3) evaluate air-to-skin transdermal uptake models. **Role:** Co-Investigator

3. R21-ES025551 (PI: **Shin**)
NIH/NIEHS

8/1/2015 - 6/30/2018
Total costs: \$430,000

Title: Prenatal Exposure to Phthalates in a High-Risk ASD Pregnancy Cohort

Goal: Determine whether exposure to phthalates during pregnancy is associated with an increased risk of ASD using multiple longitudinal biomarkers and clinical confirmation of cases based on gold standard instruments. **Role:** PI

4. 13-304 (PI: Bennett)
California Air Resources Board

9/1/2013 - 8/31/2015
Total costs: \$200,000

Title: Environmental Fate of LVP-VOCs from Consumer Products: A Modeling Approach

Goal: Develop multimedia environmental modeling tools to determine a) what portion of LVP-VOCs disposed down-the-drain will be emitted to air and b) what portion of LVP-VOCs emitted either through consumer product use or from a wastewater treatment facility will be in the gas phase at some point to form ozone. **Role:** Co-Investigator

5. DBACC (PI: Bennett)
American Chemistry Council

3/1/2011 - 12/31/2015
Total direct: \$300,000

Title: Advancing Exposure Models to Capture a Broad Continuum of Exposure Scenarios

Goal: Develop and evaluate a modeling framework capable of calculating exposures over a continuum of spatial/temporal scales resulting from a broad range of emission types and product uses. **Role:** Post-doctoral researcher

6. R21-ES023120 (PI: Bartell)
NIH/NIEHS

8/16/2013 - 7/31/2016
Total direct: \$250,000

Title: Bayesian Integration of Biomarkers and Spatial Exposure Data

Goal: Develop meaningful joint prior distributions reflecting spatiotemporal uncertainty in retrospective PFOA exposure estimates for the C8 Health Project study population, based on fate and transport models, geocoded residential histories, public water distribution pipe networks, and water use questionnaires. **Role:** PI on UCD subcontract

TEACHING

Instructor of Record, University of Texas, Arlington

- *Statistics for Scientists and Engineers* (Spring 2017, 2018)
- *Mathematical Modeling of Environmental Quality Systems* (Fall 2017, 2018)

Guest Lecturer, University of California, Davis

- *Retrospective Exposure Assessment of Perfluorooctanoic Acid in the C8 Health Project* (Spring 2012, 2013, 2015)

Teaching Assistant, University of California, Irvine

- *Introduction to Environmental Analysis and Design* (Fall 2009)

DOCTORAL AND MASTER COMMITTEES (*CHAIR)

- Kyunghoon Kim* (PhD)
- Lisa Gazzam* (PhD)
- Anjuman Ara* (PhD)
- Sasha Jones (PhD)
- Upasana Dhar (PhD)
- Sadananda Silwal (PhD)
- Nguyen Cao (PhD)
- Mitali Gautam (Master)

AWARDS AND HONORS

2002-2003	Department Scholarship, Environmental Engineering, Yonsei University, Korea
2003	Dean's List, Yonsei University, Korea
2004	Han Kyung-Bum Scholarship, Yonsei University, Korea
2005	Chung-Pa Scholarship, Yonsei University, Korea
2005	Korea Research Foundation Scholarship
2005-2007	Civil Engineering Scholarship, Carnegie Mellon University
2006	Ford Motor Company Research Grant
2006-2007	Korea Science Engineering Foundation Scholarship
2008-2010	Summer Research Stipend, University of California, Irvine
2010	Fellowship Award in Green Materials Program, University of California, Irvine
2011	School of Social Ecology Alumni Fellowship Award, University of California, Irvine
2014	Postdoctoral Scholar Association Travel Award, University of California, Davis
2014	New Investigator Travel Award, International Society of Exposure Science
2015	Award for Excellence in Postdoctoral Research, University of California, Davis
2015	Outstanding Reviewer Award, Atmospheric Environment
2016	New Investigator Travel Award, ISEE-ISES Asian Chapter

PROFESSIONAL MEMBERSHIPS

2010-2012	Member, International Society for Environmental Epidemiology
2010-	Member, International Society of Exposure Science
2014-	Member, Society of Environmental Toxicology and Chemistry
2010-	Member, Korean-American Scientists and Engineers Association (KSEA)

PROFESSIONAL SERVICE

2011	Co-chair, Exposure-Based Chemical Prioritization Workshop II, U.S. EPA
2013-2014	Judge, Student poster competition, International Society of Exposure Science
2014-2015	Financial Director, Korean-American Scientists and Engineers Association (KSEA) – Sacramento Valley Chapter
2015-2016	Auditor, KSEA – Sacramento Valley Chapter
2015	Reviewer, U.S. EPA Consumer Product Exposure Model
2016	Reviewer, NIEHS R13 Conference Applications
2018	Reviewer, Proceedings of the National Academies report

AD HOC JOURNAL REVIEWER

- *Atmospheric Environment*
- *Chemosphere*
- *Clean Technologies and Environmental Policy*
- *Environment International*
- *Environmental Health Perspectives*
- *Environmental Informatics*
- *Environmental Science: Process and Impacts*
- *Environmental Science & Technology*
- *Environmental Technology*
- *Food and Chemical Toxicology*
- *Indoor Air*
- *International Journal of Environmental Research and Public Health*
- *RSC Advances*
- *Science of the Total Environment*

CONFERENCE PRESENTATIONS/POSTERS (PRESENTER UNDERLINED)

Oral (Platform) Presentations

- 2009
1. **Shin HM**, Bartell SM, Vieira VM, Detwiler RL, Steenland K, and Ryan PB. Retrospective Exposure Estimation for Perfluorooctanoic Acid in Eastern Ohio and Western West Virginia. *International Society for Environmental Epidemiology*, Dublin, Ireland, August 2009.
 2. **Shin HM**, Bartell SM, Vieira VM, Detwiler RL, Steenland K, and Ryan PB. Retrospective Exposure Estimation for Perfluorooctanoic Acid in Eastern Ohio and Western West Virginia. *SETAC- North America*, New Orleans, Louisiana, November 2009.
- 2010
3. **Shin HM**, Vieira VM, Ryan PB, Detwiler RL, Sanders BF, Steenland K, and Bartell SM. Retrospective Exposure Estimation for Perfluorooctanoic Acid in the C8 Health Project. *US EPA PFAA Days III*, Durham, North Carolina, June 2010.
 4. **Shin HM**, Vieira VM, Ryan PB, Detwiler RL, Sanders BF, Steenland K, and Bartell SM. Retrospective Exposure Estimation for Perfluorooctanoic Acid for Participants in the C8 Health Project. *Joint Conference of the International Society for Environmental Epidemiology and Exposure Science*, Seoul, Korea, August 2010.

5. Vieira VM, **Shin HM**, Ryan PB, Detwiler RL, Sanders BF, Webster T, Fletcher T, Bartell SM. PFOA-contaminated site surrounding Teflon manufacturing facility. *International Symposium on Halogenated Persistent Organic Pollutants*, San Antonio, Texas, September 2010.
- 2011 6. **Shin HM**, Vieira V, Ryan PB, Steenland K, and Bartell SM. Retrospective Exposure Estimation for Perfluorooctanoic Acid for Participants in the C8 Health Project. *International Society for Environmental Epidemiology*, Barcelona, Spain, September 2011.
7. Fletcher T, Fitz-Simon N, Genser B, Bartell SM, **Shin HM**, Vieira VM, Armstrong B. Drinking water contaminated with perfluorinated chemicals: the use of modeled and measured serum concentrations in epidemiological analyses. *International Society for Environmental Epidemiology*, Barcelona, Spain, September 2011.
8. **Shin HM**, Vieira VM, Ryan PB, Steenland K, and Bartell SM. Calibrating Retrospective Predictions with Single Biomarker Measurements using a Bayesian Closed-Form Posteriors. *International Society of Exposure Science*, Baltimore, Maryland, October 2011.
- 2012 9. Vieira VM, Hoffman K, **Shin HM**, Weinberg, J, Webster TF, Fletcher T. Association of perfluorooctanoic acid exposure and cancer in a contaminated community: a geographic analysis. *International Society for Environmental Epidemiology*, Columbia, South Carolina, August 2012.
10. **Shin HM**, McKone TE, Tolve NS, Clifton MS, Bennett DH. Indoor Residence Times of Semivolatile Organic Compounds: Model Estimation and Field Evaluation. *International Society of Exposure Science*, Seattle, Washington, October 2012.
11. **Shin HM**, McKone TE, Bennett DH. Intake Fractions for the Indoor Environment: A Tool for Prioritizing Indoor Chemical Sources. *International Society of Exposure Science*, Seattle, Washington, October 2012.
12. **Shin HM**, McKone TE, Bennett DH. Evaluating Environmental Modeling and Sampling Data with Biomarker Data to Identify Sources and Routes of Exposure. *International Society of Exposure Science*, Seattle, Washington, October 2012.
- 2013 13. **Shin HM**, McKone TE, Nishioka MG, Fallin MD, Croen LA, Hertz-Picciotto I, Newschaffer CJ, Bennett DH. Tracking Source Strength of Semivolatile Organic Compounds using Measured *Epidemiology, Exposure Science, and Indoor Air Quality*, Basel, Switzerland, August 2013.
14. Ernststoff A, **Shin HM**, Bennett DH, Arnot J, Csiszar S, Fantke P, Jolliet O. Flagging Health Risks of Chemicals by Combining *In Vitro* Bioactivity Data with Environmental and Consumer Product Exposure Modeling. *SETAC-Europe*, Basel, Switzerland, May 2014.
15. Arnot J, Ernststoff A, **Shin HM**, Csiszar S, Fantke P, Zhang X, Jolliet O, Bennett DH, Wetmore B. Developing and Applying High-Throughput Exposure Models for Screening-level Chemical Assessment: The ExpoDat Project. *ICCA-LRI Workshop*, Lugano, Switzerland, June 2014.
16. Csiszar S, Ernststoff A, **Shin HM**, Bennett DH, Arnot J, Fantke P, Wetmore B, Zhang X, Jolliet O. The ExpoDat High throughput Exposure Assessment of 229 ToxCast I and II chemicals: Comparing near- and far-field exposures to *in vitro* bioactivities. *US EPA 2nd ToxCast Data Summit*, Durham, North Carolina, September 2014.

17. **Shin HM**, McKone TE, Bennett DH. Disaggregating Source Inputs to Compute Population-Scale Human Exposure: Merging Models and Biomonitoring Data. *International Society of Exposure Science*, Cincinnati, Ohio, October 2014.
18. **Shin HM**, McKone TE, Sohn, MD, Bennett DH. Tracking Contributions to Human Body Burden of Environmental Chemicals by Correlating Environmental Measurements with Biomarkers. *International Society of Exposure Science*, Cincinnati, Ohio, October 2014.
19. Avanasi R, **Shin HM**, Vieira VM, Bartell SM. The Impacts of Exposure Uncertainty on the Reported Association between Perfluorooctanoate and Preeclampsia. *International Society of Exposure Science*, Cincinnati, Ohio, October 2014.
20. **Shin HM**, Ernstoff A, Arnot JA, Jolliet O, Wetmore BA, Fantke P, Zhang X, McKone TE, Bennett DH. High-Throughput Chemical Prioritization based on Exposure and Dosimetry-Adjusted *In Vitro* Bioactivity. *SETAC-North America*, Vancouver, Canada, November 2014.
- 2015 21. Arnot J, **Shin HM**, Ernstoff A, Csiszar S, Fantke P, Zhang X, Bennett DH, Jolliet O, Wetmore BA, McKone TE. Developing, Applying, and Evaluating Models for Rapid Screening of Chemical Exposures. *Society of Toxicology*, San Diego, CA, April 2015.
22. **Shin HM**, McKone TE, Bennett DH. Integrated Model Framework for Chemical Emissions from the Use of Consumer Products: Human Exposure to Ozone Formation Potential. *International Society of Exposure Science*, Henderson, Nevada, October 2015.
23. Jolliet O, Huang L, Csiszar S, Arnot J, Bennett D, Ernstoff AS, **Shin HM**, Wetmore BA. Tier 2 High-Throughput Exposure Screening of Chemicals in Consumer Products: Chemicals Encapsulated in Articles and in Cosmetics. *International Society of Exposure Science*, Henderson, Nevada, October 2015.
- 2016 24. **Shin HM**, Vieira VM, Ryan PB, Steenland K, and Bartell SM. Reconstructing Historical Exposures of Perfluorooctanoic Acid (PFOA) for Large-Scale Epidemiologic Studies. *Joint Conference of ISEE-ISES Asian Chapter*, Sapporo, Japan, June 2016.
25. **Shin HM**, McKone TE, Bennett DH. Use of Indoor Dust Levels to Reconstruct Exposure to Semivolatile Organic Compounds. *International Society of Exposure Science*, Utrecht, Netherlands, October 2016.
26. Moschet C, Lew B, Anumol T, **Shin HM**, Bennett DH, Young TM. Chemical Characterization of Indoor Dust by Comprehensive Target and Non-Target Screening using GC- and LC-QTOF-MS/MS. *SETAC-North America*, Orlando, Florida, November 2016.
27. **Shin HM**, Bennett DH, Hertz-Picciotto I. Prenatal Exposure to Phthalates in a High-Risk ASD Pregnancy Cohort. *NIEHS Environmental Health Sciences FEST*, Durham, North Carolina December 2016.
- 2017 28. **Shin HM**, Bennett DH, Ye X, Calafat AM, Hertz-Picciotto I. Characterization of Pregnant Women's Phthalate Exposure using Multiple Urine Samples. *International Society of Exposure Science*, Research Triangle Park, North Carolina, October 2017.

29. Bennett DH, Moschet C, **Shin HM**, Young T. Determining Indoor Source Strengths: Utilizing Measurements and Models. *International Society of Exposure Science*, Research Triangle Park, North Carolina, October 2017.
- 2018 30. **Shin HM**. High-Throughput Exposure Modeling: Conclusions of the ExpoDate Program. *Joint Conference of the International Society for Environmental Epidemiology and Exposure Science*, Ottawa, Canada, August 2018.
31. Wambaugh JE, Isaacs KK, Phillips KA, Ring CL, Arnot J, Bennett DH, Egeghy PP, Fantke P, Huang L, Jolliet O, **Shin HM**, Westgate J. Systematic Empirical Evaluation of Models for Risk Prioritization. *Joint Conference of the International Society for Environmental Epidemiology and Exposure Science*, Ottawa, Canada, August 2018.
32. **Shin HM**, Moschet C, Young TM, Bennett DH. New Insights into Human Exposure to Consumer Product Chemicals from Comprehensive Chemical Profiles of Indoor Dust. *Joint Conference of the International Society for Environmental Epidemiology and Exposure Science*, Ottawa, Canada, August 2018.

Poster Presentations

1. **Shin HM**, Vieira VM, Ryan PB, Detwiler RL, Sanders BF, Steenland K, and Bartell SM. Environmental Fate and Transport Modeling for PFOA Emitted from the Washington Works Facility. *US EPA PFAA Days III*, Durham, North Carolina, June 2010.
2. Bennett DH, **Shin HM**, McKone TE. Use of Models to Determine Source Emission Rates from Measured Environmental Concentrations and Biomarkers. *ICCA-LRI and NCATS Workshop*, Santa Fe, New Mexico, June 2013.
3. Avanasi R, **Shin HM**, Vieira VM, Bartell SM. Potential Impacts of Uncertainty in the C8 Science Panel Exposure Assessment for Perfluorooctanoate. *Society for Risk Analysis*, Baltimore, Maryland, December 2013.
4. Arnot J, Jolliet O, Bennett DH, **Shin HM**, Ernstoff A, Csiszar S, Fantke P, Huang L, Wetmore BA, McKone TE. High-Throughput Risk-Based Chemical Screening for Human Health Assessment. *ICCA-LRI Workshop*, New Orleans, LA, June 2015.
5. Avanasi R, **Shin HM**, Vieira VM, Savitz DA, Bartell SM. Perfluorooctanoate exposure and pregnancy outcomes in the C8 Health Project: Do modeled exposures pose a high risk of bias? *International Society for Environmental Epidemiology*, Sao Paulo, Brazil, August 2015.
6. Avanasi R, **Shin HM**, Vieira VM, Bartell SM. Inter-individual variability in water ingestion rates and pharmacokinetic parameters, and impact on the epidemiological association between perfluorooctanoate and preeclampsia. *International Society of Exposure Science*, Henderson, Nevada, October 2015.
7. Huang L, **Shin HM**, Arnot J, Bennett DH, Jolliet O. Concentration-Based High-Throughput Exposure Screening of Chemicals in Flooring Materials. *International Society of Exposure Science*, Utrecht, Netherlands, October 2016.

8. **Shin HM**, Bennett DH, Hertz-Picciotto I. Temporal Trends and Variability of Phthalate Exposures among Pregnant Women in a High-Risk ASD Pregnancy Cohort. *NIEHS Environmental Health Sciences FES*T, Durham, North Carolina, December 2016.

OTHER INVITED TALKS

- 2011 Retrospective Exposure Estimation for Perfluorooctanoic Acid (PFOA) for Participants in the C8 Health Project. **Korea Environment Institute**. December 19th, 2011.
- 2012 Exposure Science: A Linkage between Environmental Pollution and Human Health. **Gwangju Institute of Science and Technology, Korea**. November 8th, 2012.
Exposure Science: A Linkage between Environmental Pollution and Human Health. **National Institute of Environmental Research, Korea**. November 12th, 2012.
- 2013 Modeling Human Exposure to Environmental Contaminants. **Yale University**. January 17th, 2013.
Modeling Human Exposure to Environmental Contaminants. **Emory University**. April 23rd, 2013.
- 2015 Advancing Exposure Assessment for Environmental Epidemiology and Risk Assessment. **Drexel University**. February 3rd, 2015.
CalTOX: Introduction and Its Application Methods in Korea. **Rural Development Administration, Korea**. June 8th, 2015.
- 2016 Exposure Assessment of Environmental Chemicals for Environmental Epidemiology. **New York University**. February 10th, 2016.
Fate and Transport Modeling and Exposure Assessment of Environmental Pollutants. **Gwangju Institute of Science and Technology, Korea**. March 21st, 2016.
Exposure Assessment of Environmental Chemicals for Environmental Epidemiology. **University of Texas, Arlington**. March 27th, 2016.
Exposure Assessment of Environmental Chemicals for Environmental Epidemiology. **Oregon State University**. April 21st, 2016.
Fate and Transport Modeling and Exposure Assessment of Environmental Pollutants. **Pohang Institute of Science and Technology, Korea**. May 11th, 2016.
- 2017 Fate and Transport Modeling and Exposure Assessment of Environmental Pollutants. **Soonchunhyang University, Korea**. May 10th, 2017.
- 2018 Exposure Assessment of Environmental Chemicals for Environmental Epidemiology. **University of California, Davis**. March 5th, 2018.
Retrospective Exposure Estimation for Perfluorooctanoic Acid (PFOA) for Participants in the C8 Health Project. **National Academies of Science, Engineering, and Medicine**. June 14th, 2018.
Fate and Transport of Environmental Contaminants and Assessing Human Exposures. **Texas Christian University**. September 21st, 2018.