

CURRICULUM VITAE

Hyeong-Moo Shin, Ph.D.

Associate Professor
Department of Environmental Science
Baylor University
One Bear Place #97266, Waco, TX, 76798
Email: HyeongMoo_Shin@baylor.edu
[Website](#) | [Google Scholar](#) | [ResearchGate](#) | [PubMed](#) | [ORCID](#)

EDUCATION

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

APPOINTMENTS AND POSITIONS

2022-	Associate Professor (tenured) Department of Environmental Science, Baylor University, Texas
2016-2022	Assistant Professor 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

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- Fate and transport modeling
 - Risk assessment
 - Autism spectrum disorder
 - Exposure assessment
 - Environmental epidemiology
 - Air pollution

PEER-REVIEWED PUBLICATIONS

Publication Summary (*based on 2021 [Journal Citation Reports](#))

Journal name	First author	Advising author	Co-author	Total	Impact factor*	Journal ranking within category*
<i>Environment International</i>	2	2		4	13.35	Env. Sci. (16/279)
<i>Environ Sci. & Technol.</i>	7	2	2	11	11.36	Env. Sci. (22/279)
<i>Environ. Health Perspect.</i>	1		8	9	11.04	Env. Sci. (25/279)
<i>Chemosphere</i>	1	1		2	8.94	Env. Sci. (33/279)
<i>Environmental Research</i>	1	2	3	6	8.43	Env. Sci. (37/279)
<i>Environmental Health</i>	1			1	7.12	Env. Sci. (53/279)
<i>Indoor Air</i>	3	1	2	6	6.55	Env. Eng. (19/55)
<i>Atmospheric Environment</i>	3			3	5.76	Env. Sci. (78/279)
<i>Epidemiology</i>			1	1	4.86	Pub. Health (67/210)
<i>Current Opinion in Toxicol.</i>			1	1	4.05	Toxicology (37/122)
<i>PLOS One</i>	1			1	3.75	Multi. Sci. (29/73)
Total	20	8	17	45		

Published/Accepted (*Advising student or postdoc, corresponding author underlined)

- 2022 1. Park SK, Lee HJ, Song E, Jung Y, Yoo HJ, Oh JE, **Shin HM**, Kwon JH. 2022. Filling gaps between exposure modeling and the analysis of urinary biomarkers using personal air monitoring: an intervention study of permethrin used in home insecticide spray. *Indoor Air* (In press) 10.1111/ina.13090.
2. Oh J*, Bennett DH, Tancredi D, Calafat A, Schmidt RJ, Hertz-Picciotto I, **Shin HM**. 2022. Longitudinal Changes in Maternal Serum Concentrations of Per- and Polyfluoroalkyl Substances from Pregnancy to Two Years Postpartum. *Environmental Science & Technology* (In press) 10.1021/acs.est.1c07970.
3. Oh J*, **Shin HM**, Nishimura T, Rahman MS, Takahashi N, Tsuchiya KJ. 2022. Perfluorooctanoate and Perfluorooctane Sulfonate in Umbilical Cord Blood and Child Cognitive Development: Hamamatsu Birth Cohort for Mothers and Children (HBC Study). *Environment International* 163:107215.
4. Zhu Y, **Shin HM**, Jiang L, Bartell SM. 2022. Retrospective Exposure Reconstruction using Approximate Bayesian Computation: A Case Study on Perfluorooctanoic Acid and Preeclampsia. *Environmental Research* 209:112892.
- 2021 5. **Shin HM**, Oh J*, Kim K*, Busgang SA, Bar DB, Panuwet P, Schmidt RJ, Hertz-Picciotto I, Bennett DH. 2021. Variability of Urinary Concentrations of Phenols, Parabens and Triclocarban during Pregnancy in First Morning Voids and Pooled Samples. *Environmental Science & Technology* 55(23):16001-16010.
6. Kim K*, **Shin HM**, Busgang SA, Bar DB, Panuwet P, Schmidt RJ, Hertz-Picciotto I, Bennett DH. 2021. Temporal Trends of Phenol, Paraben, and Triclocarban Exposure in California Pregnant Women during 2007-2014. *Environmental Science & Technology* 55(16):11155-11165.
7. Oh J*, Schmidt RJ, Tancredi D, Calafat A, Roa DL, Hertz-Picciotto I, **Shin HM**. 2021. Prenatal Exposure to Per- and Polyfluoroalkyl Substances and Cognitive Development in Infancy and Toddlerhood. *Environmental Research* 196:110939.
8. Kim K*, **Shin HM**, Wong L, Young T, Bennett DH. 2021. Evaluating Couch Polyurethane Foam for a Potential Passive Sampler of Semivolatile Organic Compounds. *Chemosphere* 271:129349.
9. Kim K*, **Shin HM**, Wong L, Young T, Bennett DH. 2021. Temporal Variability of Indoor Dust Concentrations of Semivolatile Organic Compounds. *Indoor Air* 31(3):693-701.
10. Oh J*, Bennett DH, Calafat A, Tancredi D, Roa DL, Schmidt RJ, Hertz-Picciotto I, **Shin HM**. 2021. Prenatal Exposure to Per- and Polyfluoroalkyl Substances in Association with Autism Spectrum Disorder in the MARBLES Study. *Environment International* 147:106328.
11. Eichler CMA, Xu Y, Cao J, Weschler CJ, Salthammer T, Morrison GC, Zhang Y, Mandin C, Wei W, Blondeau P, Poppendieck D, Hubal EAC, Liu X, Delmaar C, Joonas Koivisto A, Jolliet O, **Shin HM**, Diamond ML, Bi C, Little JC. 2021. Assessing Human Exposure to Chemicals in Materials, Products, and Articles: A Modular Mechanistic Framework. *Environmental Science & Technology* 55(1):25-43.
- 2020 12. **Shin HM**, Dhar U*, Calafat A, Nguyen V, Schmidt RJ, Hertz-Picciotto I. 2020. Temporal Trends of Exposure to Phthalates and Phthalate Alternatives in California Pregnant Women during 2007-2013: Comparison with Other Populations. *Environmental Science & Technology* 54(20):13157-13166.

13. **Shin HM**, Bennett DH, Calafat A, Tancredi D, Hertz-Picciotto I. 2020. Modeled Prenatal Exposure to Per- and Polyfluoroalkyl Substances in Association with Child Autism Spectrum Disorder: A Case-Control Study. *Environmental Research* 186:109514.
14. Kim K*, Bennett DH, Calafat A, Hertz-Picciotto I, **Shin HM**. 2020. Temporal Trends and Determinants of Serum Concentrations of Per- and Polyfluoroalkyl Substances among Northern California Mothers with a Young Child, 2009-2016. *Environmental Research* 186:109491.
15. **Shin HM**, Moschet C, Young TM, Bennett DH. 2020. Measured Concentrations of Consumer Product Chemicals in California House Dust: Implications for Sources, Exposure, and Toxicity Potential. *Indoor Air* 30(1):60-75.
- 2019 16. **Wambaugh JF**, Bare JC, Carignan CC, Dionisio KL, Dodson RE, Jolliet O, Liu X, Meyer DE, Newton SR, Phillips K, Price PS, Ring CL, **Shin HM**, Sobus JR, Tal T, Ulrich EM, Valero DA, Wetmore BA, Isaacs KK. 2019. New Approach Methodologies for Exposure Science. *Current Opinion in Toxicology* 15:76-92.
17. Ring CL, Arnot J, Bennett DH, Egeghy PP, Fantke P, Huang L, Isaacs KK, Jolliet O, Phillips K, Price PS, **Shin HM**, Westgate J, Setzer RW, **Wambaugh JF**. 2019. Consensus Modeling of Median Chemical Intake for the U.S. Population Based on Predictions of Exposure Pathways. *Environmental Science & Technology* 53(2):719-732.
18. **Shin HM**, Bennett DH, Barkoski J, Ye X, Calafat AM, Tancredi D, Hertz-Picciotto I. 2019. Variability of Urinary Concentrations of Phthalate Metabolites during Pregnancy in First Morning Voids and Pooled Samples. *Environment International* 122:222-230.
- 2018 19. **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. 2018. Advancements in Life Cycle Human Exposure and Toxicity Characterization. *Environmental Health Perspectives* 126(12):125001.
20. **Shin HM**, Schmidt R, Tancredi D, Barkoski J, Ozonoff S, Bennett DH, Hertz-Picciotto I. 2018. Prenatal Exposure to Phthalates and Risk for Autism Spectrum Disorder in the MARBLES Study. *Environmental Health* 17:85.
- 2017 21. **Shin HM**, McKone TE, Bennett DH. 2017. Model Framework for Integrating Multiple Exposure Pathways to Chemicals in Household Cleaning Products. *Indoor Air* 27(4):829-839.
- 2016 22. Hodas N, Loh M, **Shin HM**, Li D, Bennett DH, McKone TE, Jolliet O, Weschler CJ, Jantunen M, Liou P, **Fantke P**. 2016. Indoor Inhalation Intake Fractions of Fine Particulate Matter: Review of Influencing Factors. *Indoor Air* 26(6):836-856.
23. **Avanasi 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.
24. **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.
25. **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.

26. Avanasi 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.
27. Avanasi 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.
- 2015 28. **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.
29. **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.
- 2014 30. **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.
31. **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.
32. **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(3):260-271.
33. **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.
34. 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.
- 2013 35. Winqvist 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.
36. **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.
37. 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.
38. **Shin HM**, McKone TE, Tolve 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.

39. 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.
- 2012 40. **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.
41. **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.
42. 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.
43. 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.
- 2011 44. **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.
45. **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 (*Advising student or postdoc, corresponding author underlined)

1. Oh J, **Shin HM**, Kannan K, Busgang SA, Schmidt RJ, Schweitzer JB, Hertz-Picciotto I, Bennett DH. Childhood Exposure to Per- and Polyfluoroalkyl Substances and Neurodevelopment in the CHARGE Case-Control Study. (Under revision)
2. Parenti M, Schmidt RJ, Ozonoff S, **Shin HM**, Tancredi DJ, Krakowiak P, Hertz-Picciotto I, Walker CK, Slupsky CM. The Maternal Serum and Placental Metabolomes in Association with Prenatal Phthalate Exposure and Neurodevelopmental Outcomes in the MARBLES Cohort. (In preparation)
3. Oh J, **Shin HM**, Kannan K, Busgang SA, Schmidt RJ, Hertz-Picciotto I, Bennett DH. Per- and Polyfluoroalkyl Substances (PFAS) in Serum of 2- to 5-year-old Children: Temporal Trends, Determinants, and Correlations with Maternal PFAS Concentrations. (In preparation)

GRANT SUPPORT

Current and Pending

1. Improving Pesticide Exposure Assessment in an Indoor Residential Environment via Model Refinement, **2022-2024**
 - Funding agency: **Syngenta** (\$198,739)
 - Role: **PI**
2. Prenatal Exposure to NIS Inhibitors, Iodine Deficiency, and Thyroid Dysfunction, **2022-2024**
 - Funding agency: **NIH/NIEHS** (R01-ES033389, 428,609)

- Role: **PI**
3. Per- and Polyfluoroalkyl Substances and Thyroid Function in Association with Autism Spectrum Disorder
 - Funding agency: **NIH/NIEHS** (R01-ES034395, \$2,327,736)
 - Role: **PI**
 - Status: Pending council review, 29th percentile on the last submission
 4. Longitudinal Humoral Immune Dysregulation in a High-Risk ASD Cohort
 - Funding agency: **NIH/NICHD** (R21-HD109595, \$439,633)
 - Role: **MPI**
 - Status: Under revision for resubmission

Completed

1. Exposure to Perfluorinated Compounds and Risk for Autism Spectrum Disorders, **2017-2020**
 - Funding agency: **NIH/NIEHS** ([R21-ES028131](#), \$436,273)
 - Role: **PI**
2. Prenatal Exposure to Phthalates in a High-Risk ASD Pregnancy Cohort, **2015-2018**
 - Funding agency: **NIH/NIEHS** ([R21-ES025551](#), \$430,750)
 - Role: **PI**
3. Tracking Semivolatile Organic Compounds Indoors: Merging Models and Field Sampling to Assess Concentrations, Emissions, and Exposures, **2015-2018**
 - Funding agency: **U.S. Environmental Protection Agency** ([R835641](#), \$900,000)
 - Role: **Co-I** (PI: Deborah Bennett)
4. Bayesian Integration of Biomarkers and Spatial Exposure Data, **2013-2016**
 - Funding agency: **NIH/NIEHS** ([R21-ES023120](#), \$387,426)
 - Role: **Subcontract PI** at UC Davis (PI: Scott Bartell)
5. Environmental Fate of LVP-VOCs from Consumer Products: A Modeling Approach, **2013-2015**
 - Funding agency: **California Air Resources Board** (13-304, \$200,000)
 - Role: **Co-I** (PI: Deborah Bennett)
6. Advancing Exposure Models to Capture a Broad Continuum of Exposure Scenarios, **2011-2015**
 - Funding agency: **American Chemistry Council** (DBACC, \$300,000)
 - Role: **Post-doctoral researcher** (PI: Deborah Bennett)

AWARDS AND HONORS

2022	Nominated for the President's Award for Excellence in Teaching, University of Texas, Arlington (UT-Arlington)
2021	Outstanding Teaching Award , College of Science, UT-Arlington
2021	Jiwon Oh (Ph.D. student) won the first place from the student poster competition, UT-Arlington College of Science Discover Event
2020	Jiwon Oh (Ph.D. student) received the Poster Abstract Award from the International Society for Environmental Epidemiology (ISEE) Conference
2020	Kyunghoon Kim (Ph.D. student) received the Postdoctoral Fellowship, UT-Arlington
2020	Ring et al. 2019 that Dr. Shin co-authored received an honorable mention for the best biological modeling paper from the Society of Toxicology
2019	Faculty Senate Travel Award, University of Texas, Arlington
2016	New Investigator Travel Award, ISEE-ISES Asian Chapter
2015	Outstanding Reviewer Award, Atmospheric Environment

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

TEACHING

Instructor of Record, University of Texas, Arlington

- Environmental Field Methods (Summer 2020-2022)
- Machine Learning for Earth and Environmental Scientists (Spring 2022)
- Mathematical Modeling of Environmental Quality Systems (Fall 2017-2019)
- Statistics for Earth and Environmental Scientists (Spring 2017-2020; Fall 2020, 2021)

DOCTORAL AND MASTER COMMITTEES (*CHAIR)

University of Texas, Arlington

1. Sasha Jones (**PhD**, Environmental Science, 2017-2022)
2. Jiwon Oh* (**PhD**, Environmental Science, 2021)
3. Erika Crespo (**MS**, Environmental Science, 2021)
4. Linnea Standard (**MS**, Environmental Science, 2021)
5. Chaitanya Mulye (**MS**, Environmental Science, 2021)
6. Aimee Rockhill-Carpenter* (**MS**, Environmental Science, 2021)
7. Upasana Dhar* (**PhD**, Environmental Science, 2020)
8. Kyunghoon Kim* (**PhD**, Environmental Science, 2020)
9. Kimberly Tidd (**MS**, Environmental Science, 2020)
10. Joshua Pulcinella (**MS**, Environmental Science, 2020)
11. Gennadii Prykhodko (**MS**, Environmental Science, 2020)
12. Ohimai Imoukhuede* (**Honors undergraduate**, Environmental Science, 2019)
13. Hammad Ahmed (**MS**, Earth Science, 2019)
14. Sadananda Silwal (**PhD**, Environmental Science, 2019)
15. Nguyen Cao (**PhD**, Environmental Science, 2019)
16. Mitali Gautam (**MS**, Environmental Science, 2018)

Korea University

1. Seon-Kyung Park (**PhD**, Environmental Science, 2022)

PROFESSIONAL MEMBERSHIPS

- | | |
|-----------|---|
| 2010- | Member, International Society for Environmental Epidemiology (ISEE) |
| 2010- | Member, International Society of Exposure Science (ISES) |
| 2014- | Member, Society of Environmental Toxicology and Chemistry (SETAC) |
| 2010-2017 | Member, Korean American Scientists and Engineers Association (KSEA) |

PROFESSIONAL SERVICE

Editorial work

- 2021- [Associate Editor](#), *Journal of Exposure Science and Environmental Epidemiology*
- 2021 Review Editor, *Frontiers in Environmental Science*
- 2020- Editorial Board Member, *Toxics*
- 2019-2021 Review Editor, *Frontiers in Sustainability*
- 2019- Editorial Board Member, *International Journal of Hygiene and Environmental Health*

Others

- 2020 Member, Technical Organizing Committee, *International Society of Exposure Science*
- 2019 Judge, student poster competition, *International Society for Environmental Epidemiology*
- 2019 Session co-chair on 'Consumer Products', *International Society of Exposure Science*
- 2018 Panel member, *Department of Defense Biorepository Workshop by the National Academies of Sciences, Engineering, and Medicine*
- 2018-2021 Advising professor, Korean Student Association of the UT Arlington
- 2016- Task force member, *the Life Cycle Initiative* hosted by the UN Environment
- 2014-2016 Financial director (2014-2015) and Auditor (2015-2016), Korean American Scientists and Engineers Association (KSEA) – *Sacramento Valley Chapter*
- 2013- Judge, student poster competition, *International Society of Exposure Science*
- 2011 Co-chair, *U.S. EPA's Exposure-Based Chemical Prioritization Workshop II*

ACADEMIC SERVICE (UT-ARLINGTON)

University Service

- 2019-2022 Member, Student Organization Committee
- 2018 Member, President's Advisory Board

College Service

- 2020-2022 Member, Academic Affairs Committee
- 2019-2022 Judge, Student poster competition during the College of Science Discover Event
- 2018-2022 Chair, Data Science Program Website Committee
- 2017-2022 Member, Data Science Program Initiative Committee

Department Service

- 2021-2022 Chair, Search Committee for Assistant Professor of Instruction
- 2021-2022 Member, Graduate Admission Committee
- 2021-2022 Member, Graduate Studies Committee
- 2021-2022 Co-Chair, Curriculum Committee
- 2021 Member, Research Committee
- 2020-2021 Member, Scholarship Committee
- 2019-2021 Chair, Website Committee
- 2018-2021 Member, Search Committee for Tenure-Track Faculty
- 2017-2019 Program Organizer, Technical Sessions (five long semesters)

AD HOC REVIEWER

Grant proposals

- 2021 NSF collaborative research proposal
- 2016 NIH R13 conference applications

Journal papers

1. *Atmospheric Environment*
2. *Chemosphere*
3. *Clean Technologies and Environmental Policy*
4. *Environment International*
5. *Environmental Health Perspectives*
6. *Environmental Informatics*
7. *Environmental Pollution*
8. *Environmental Research*
9. *Environmental Science: Process and Impacts*
10. *Environmental Science & Technology*
11. *Environmental Science & Technology Letters*
12. *Environmental Technology*
13. *Food and Chemical Toxicology*
14. *Frontiers in Environmental Science*
15. *Indoor Air*
16. *International Journal of Environmental Research and Public Health*
17. *International Journal of Hygiene and Environmental Health*
18. *Journal of Exposure Science and Environmental Epidemiology*
19. *Journal of Hazardous Materials*
20. *Neurotoxicology and Teratology*
21. *RSC Advances*
22. *Science of the Total Environment*

Others

- 2021 Reviewer, Conference Abstract, *International Society of Exposure Science*
- 2020 Reviewer, Conference Travel Awards, *International Society of Exposure Science*
- 2018 Reviewer, *Proceedings of the National Academies report*
- 2015 Reviewer, U.S. EPA's *Consumer Product Exposure Model*

CONFERENCE PRESENTATIONS (PRESENTER UNDERLINED)

Presentation summary

Presentation type	First author and/or presenting author	Advising author	Co-author	Total
Oral presentation	23		15	38
Poster presentation	8	4	6	18
Total	31	4	21	56

Oral (Platform) Presentations

- 2020 1. **Shin HM**. New Approaches for Exposure Assessment for Fine Particulate Matter. *International Society of Indoor Air Quality and Climate*, Virtual, November 2020.
- 2. Siegel D, Hinchey E, **Shin HM**. One-Dimensional Solute Transport Modeling Revisited: An Effective Way to Broadly Characterize PFAS Transport Through Soils to the Water-Table. *Geological Society of America*, Virtual, October 2020.
- 2019 3. **Shin HM**. New Approaches for Exposure Assessment for Fine Particulate Matter from Various Indoor Emissions. *Joint Conference of ISEE-ISES Asian Chapter*, Daegu, South Korea, October 2019.
- 4. Kim K, Bennett DH, Calafat A, **Shin HM**. Temporal Trends and Predictors of Exposure to Per- and Polyfluoroalkyl Substances among Northern California Mothers with a Young Child, 2009-2016.

Joint Conference of the International Society of Exposure Science and Indoor Air Quality and Climate, Kaunas, Lithuania, August 2019.

5. Dhar U, Bennett DH, Calafat A, **Shin HM**. Temporal Trends of Phthalate Exposures in Northern California's Pregnant Women: Comparison with NHANES Data. *Joint Conference of the International Society of Exposure Science and Indoor Air Quality and Climate*, Kaunas, Lithuania, August 2019.
6. **Shin HM**, Bennett DH, Calafat A, Tancredi D, Hertz-Picciotto I. Exposure to Per- and Polyfluoroalkyl Substances in Association with Autism Spectrum Disorder: A Case-Control Study. *International Society for Environmental Epidemiology*, Utrecht, The Netherlands, August 2019.
- 2018 7. **Shin HM**. High-Throughput Exposure Modeling: Conclusions of the ExpoDat Program. *Joint Conference of the International Society for Environmental Epidemiology and Exposure Science*, Ottawa, Canada, August 2018.
8. Wambaugh JF, 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.
9. **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.
- 2017 10. **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.
11. 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.
- 2016 12. **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.
13. 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.
14. **Shin HM**, McKone TE, Bennett DH. Use of Indoor Dust Levels to Reconstruct Exposure to Semivolatile Organic Compounds. *International Society of Exposure Science*, Utrecht, The Netherlands, October 2016.
15. **Shin HM**, Vieira VM, Ryan PB, Steenland K, 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.
- 2015 16. **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.
17. Jolliet O, Huang L, Csiszar S, Arnot J, Bennett DH, 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.

18. 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.
- 2014 19. **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.
20. **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.
21. **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.
22. 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.
23. Csiszar S, Ernstoff 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.
24. Arnot J, Ernstoff 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.
25. Ernstoff 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.
- 2013 26. **Shin HM**, McKone TE, Nishioka MG, Fallin MD, Croen LA, Hertz-Picciotto I, Newschaffer CJ, Bennett DH. Tracking Source Strength of Semivolatile Organic Compounds from Indoor Dust. *Joint Conference of the International Society for Environmental Epidemiology, Exposure Science, and Indoor Air Quality and Climate*, Basel, Switzerland, August 2013.
- 2012 27. **Shin HM**, McKone TE, Tulse 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.
28. **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.
29. **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.
30. 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.
- 2011 31. **Shin HM**, Vieira VM, Ryan PB, Steenland K, Bartell SM. Calibrating Retrospective Predictions with Single Biomarker Measurements using a Bayesian Closed-Form Posteriors. *International Society of Exposure Science*, Baltimore, Maryland, October 2011.

32. **Shin HM**, Vieira V, Ryan PB, Steenland K, Bartell SM. Retrospective Exposure Estimation for Perfluorooctanoic Acid for Participants in the C8 Health Project. *International Society for Environmental Epidemiology*, Barcelona, Spain, September 2011.
33. **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.
- 2010 34. **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.
35. **Shin HM**, Vieira VM, Ryan PB, Detwiler RL, Sanders BF, Steenland K, 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.
36. **Shin HM**, Vieira VM, **Ryan PB**, Detwiler RL, Sanders BF, Steenland K, Bartell SM. Retrospective Exposure Estimation for Perfluorooctanoic Acid in the C8 Health Project. *US EPA PFAA Days III*, Durham, North Carolina, June 2010.
- 2009 37. **Shin HM**, Bartell SM, Vieira VM, Detwiler RL, Steenland K, **Ryan PB**. Retrospective Exposure Estimation for Perfluorooctanoic Acid in Eastern Ohio and Western West Virginia. *SETAC- North America*, New Orleans, Louisiana, November 2009.
38. **Shin HM**, Bartell SM, Vieira VM, Detwiler RL, Steenland K, **Ryan PB**. Retrospective Exposure Estimation for Perfluorooctanoic Acid in Eastern Ohio and Western West Virginia. *International Society for Environmental Epidemiology*, Dublin, Ireland, August 2009.

Poster Presentations

- 2021 1. Kim K, **Shin HM**, Wong L, Young T, Bennett DH. Evaluating Couch Polyurethane Foam for a Potential Passive Sampler of Semivolatile Organic Compounds. *International Society of Exposure Science*, Virtual, August 2021.
2. Kim K, **Shin HM**, Busgang SA, Bar DB, Panuwet P, Schmidt RJ, Hertz-Picciotto I, Bennett DH. Temporal Trends of Phenol and Paraben Exposure in California Pregnant Women during 2007-2016: Implications from Comparison with Other Populations. *International Society of Exposure Science*, Virtual, August 2021.
3. **Shin HM**, Oh J, Kim K, Busgang SA, Bar DB, Panuwet P, Schmidt RJ, Hertz-Picciotto I, Bennett DH. Variability of Urinary Concentrations of Phenols and Parabens during Pregnancy in First Morning Voids and Pooled Samples. *International Society of Exposure Science*, Virtual, August 2021.
4. **Oh J**, Bennett DH, Schmidt RJ, Hertz-Picciotto I, **Shin HM**. Changes in Maternal Serum Concentrations of Per- and Polyfluoroalkyl Substances from Pregnancy to Two Years Postpartum. *International Society for Environmental Epidemiology*, Virtual, August 2021.
5. **Oh J**, **Shin HM**. Changes in Maternal Serum Concentrations of Per- and Polyfluoroalkyl Substances from Pregnancy to Two Years Postpartum. *University of Texas-Arlington College of Science Discover Event*, Virtual, April 2021. [*Won the first place from the student poster competition](#)
- 2020 6. **Oh J**, Bennett DH, Tancredi D, Roa DL, Schmidt RJ, Hertz-Picciotto I, **Shin HM**. Prenatal Exposure to Per- and Polyfluoroalkyl Substances in Association with Autism Spectrum Disorder in

the MARBLES Study. *International Society for Environmental Epidemiology*, Dublin, Virtual, August 2020. [*Won the Students and New Researchers Network Poster Abstract Award](#)

7. **Shin HM**, Kim K, Wong L, Young T, Bennett DH. Temporal Variability of Indoor Dust Concentrations of Semivolatile Organic Compounds. *International Society of Exposure Science*, Virtual, September 2020.
8. Oh J, Bennett DH, Tancredi D, Roa DL, Schmidt RJ, Hertz-Picciotto I, **Shin HM**. Prenatal Exposure to Per- and Polyfluoroalkyl Substances and Cognitive Development in Infancy and Toddlerhood. *International Society for Environmental Epidemiology*, Virtual, August 2020.
- 2019 9. **Shin HM**, Schmidt R, Tancredi D, Barkoski J, Ozonoff S, Bennett DH, Hertz-Picciotto I. Prenatal Exposure to Phthalates and Risk for Autism Spectrum Disorder in the MARBLES Study. *Joint Conference of ISEE-ISES Asian Chapter*, Daegu, South Korea, October 2019.
10. **Shin HM**, Bennett DH, Tancredi D, Hertz-Picciotto I. Maternal Exposure to Per- and Polyfluoroalkyl Substances in Association with Child Autism Spectrum Disorder: A Case-Control study. *Joint Conference of ISEE-ISES Asian Chapter*, Daegu, South Korea, October 2019.
- 2016 11. **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 FEST*, Durham, North Carolina, December 2016.
12. 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.
- 2015 13. 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.
14. 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.
15. 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.
- 2013 16. 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.
17. 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.
- 2011 18. **Shin HM**, Vieira VM, Ryan PB, Detwiler RL, Sanders BF, Steenland K, 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.

INVITED TALKS

- 2022 1. Exposure and Risk Assessment of Endocrine Disrupting Chemicals. **Soonchunhyang University**, May 31st, 2022

2. Exposure and Risk Assessment of Endocrine Disrupting Chemicals. **University of Texas at Arlington**, April 1st, 2022.
3. Exposure and Risk Assessment of Endocrine Disrupting Chemicals. **Baylor University**, February 17th, 2022.
- 2021 4. Prenatal Exposure to Endocrine Disrupting Chemicals in Association with Autism Spectrum Disorder. **Korea Research Institute of Chemical Technology**. November 18th, 2021 (Virtual).
5. Prenatal Exposure to Endocrine Disrupting Chemicals in Association with Autism Spectrum Disorder. **Korea Society for Developmental Psychology**. November 13th, 2021 (Virtual).
6. Exposure and Risk Assessment of Environmental Pollutants in the Era of Big Data and AI. **Seoul National University, Korea**. September 22nd, 2021 (Virtual).
- 2019 7. Exposure and Risk Assessment for Chemical Management. **Rural Development Administration, Korea**. December 23rd, 2019.
8. Exposure and Risk Assessment for Risk Management and Chemical Regulation. **Korea Institute of Industrial Technology**. December 20th, 2019.
9. Exposure Modeling for High-Throughput Chemical Screening and Prioritization. **Integrated Chemical Exposure and Risk Assessment Workshop, Korea**. December 19th, 2019.
10. C8 Science Panel Studies and Directions of Exposure and Risk Assessment. **Seoul National University, Korea**. December 18th, 2019.
11. Exposure and Risk Assessment in the 21st Century. **Eye of Horus - Exposure Study, Korea**. December 16th, 2019.
12. Fate and Transport Modeling and Exposure Assessment of Environmental Pollutants. **Daegu Catholic University, Korea**. October 16th, 2019.
13. Fate and Transport Modeling and Exposure Assessment of Environmental Pollutants. **Korea University, Korea**. October 15th, 2019.
14. Modeling Human Exposure to Consumer Product Chemicals: Principles and Applications of SHEDS-HT. **National Institute of Food and Drug Safety Evaluation, Korea**. June 20th, 2019.
15. Advancing Exposure Assessment for Environmental Epidemiology and Risk Assessment. **Seoul National University, Korea**. June 14th, 2019.
16. Prenatal Exposure to Phthalates and Autism Spectrum Disorder. **University of Texas at Arlington**. April 5th, 2019.
17. Prenatal Exposure to Phthalates and Autism Spectrum Disorder. **University of Texas Health Sciences Center at Houston**. March 26th, 2019.
- 2018 18. Fate and Transport of Environmental Contaminants and Assessing Human Exposures. **Texas Christian University**. September 21st, 2018.
19. Retrospective Exposure Estimation for Perfluorooctanoic Acid (PFOA) for Participants in the C8 Health Project. **National Academies of Science, Engineering, and Medicine**. June 14th, 2018.
20. Exposure Assessment of Environmental Chemicals for Environmental Epidemiology. **University of California, Davis**. March 5th, 2018.
- 2017 21. Fate and Transport Modeling and Exposure Assessment of Environmental Pollutants. **Soonchunhyang University, Korea**. May 10th, 2017.

- 2016 22. Fate and Transport Modeling and Exposure Assessment of Environmental Pollutants. **Pohang Institute of Science and Technology, Korea**. May 11th, 2016.
23. Exposure Assessment of Environmental Chemicals for Environmental Epidemiology. **Oregon State University**. April 21st, 2016.
24. Exposure Assessment of Environmental Chemicals for Environmental Epidemiology. **University of Texas at Arlington**. March 27th, 2016.
25. Fate and Transport Modeling and Exposure Assessment of Environmental Pollutants. **Gwangju Institute of Science and Technology, Korea**. March 21st, 2016.
26. Exposure Assessment of Environmental Chemicals for Environmental Epidemiology. **New York University**. February 10th, 2016.
- 2015 27. CalTOX: Introduction and Its Application Methods in Korea. **Rural Development Administration, Korea**. June 8th, 2015.
28. Advancing Exposure Assessment for Environmental Epidemiology and Risk Assessment. **Drexel University**. February 3rd, 2015.
- 2013 29. Modeling Human Exposure to Environmental Contaminants. **Emory University**. April 23rd, 2013.
30. Modeling Human Exposure to Environmental Contaminants. **Yale University**. January 17th, 2013.
- 2012 31. Exposure Science: A Linkage between Environmental Pollution and Human Health. **National Institute of Environmental Research, Korea**. November 12th, 2012.
32. Exposure Science: A Linkage between Environmental Pollution and Human Health. **Gwangju Institute of Science and Technology, Korea**. November 8th, 2012.
- 2011 33. Retrospective Exposure Estimation for Perfluorooctanoic Acid (PFOA) for Participants in the C8 Health Project. **Korea Environment Institute**. December 19th, 2011.