Heather M. Stapleton, Ph.D

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EDUCATION:

Southampton College	Biology and Chemistry	B.S.	1997
University of Maryland	Environmental Chemistry	M.S.	2000
University of Maryland	Environmental Chemistry	Ph.D.	2003
NIST	Analytical Chemistry Division	Postdoc	2003-2005

APPOINTMENTS AND EMPLOYMENT:

Duke University, Durham, NC	
Professor, Nicholas School of the Environment	07/20 -present
Associate Professor, Nicholas School of the Environment	07/12- 07/20
Assistant Professor, Nicholas School of the Environment	09/05 - 07/12
 Faculty Member, Integrated Toxicology & Environmental Health 	05/06- present
 Secondary Appointment, Civil & Environ Engineering 	04/09- present
National Institute of Standards and Technology, Gaithersburg, MD	·
National Research Council Postdoctoral Fellow	09/03 - 08/05

ADMINISTRATIVE LEADERSHIP:

Director, Duke Environmental Analysis HHEAR Lab Hub	9/19 - present
Co-Director, Duke Center for Environmental Exposomics	1/18 - present
Leader for the Physical Environment program within the Children's Health	10/17 – 10/19
Discovery Institute, Duke University Medical Center	
Director, Duke University Superfund Research Center	07/16 -present
Chair, Masters of Environmental Management program in Ecotoxicology	09/12 - 08/19
& Environmental Health	

AWARDS AND RECOGNITIONS:

- Duke University's Thomas Langford Lectureship Award, 2020
- Web of Science Highly Cited Researcher, 2019
- Excellence in Review Award, Environmental Science & Technology Letters, 2019
- Recipient of the Best Science Paper of 2017: Environmental Science & Technology Letters
- Thomson Reuters 2015 List of Most Highly Cited Researchers in Environment/Ecology
- Thomson Reuters 2014 List of Most Highly Cited Researchers in Environment/Ecology
- Environmental Science & Technology Excellence in Reviewing Award (2014)
- Testified at US Senate Hearing on Flame Retardant Chemicals (July 2012)
- Recipient of the Best Science Paper of 2011: Environmental Science and Technology
- Environmental Health News Communication Fellow (2010)
- Recipient of a 2008 NIEHS "Outstanding New Environmental Scientist" (ONES) award (\$2.2 million grant for 5 years)
- National Research Council (NRC) Postdoctoral Research Fellowship (Sept. 2003 Aug. 2005)
- Otto Hutzinger Award for the best student presentation at the 2003 International Symposium on Halogenated Organic Compounds in the Environment (Dioxin).
- Awarded a 3-year fellowship from the E.P.A.'s Science To Achieve Results (STAR) program. (September 1999). Fellowship number U-915564-01-0

EDITORIAL BOARDS:

- Associate Editor, Environment International
- Editorial Advisory Board, Environmental Science & Technology,
- Editorial Advisory Board, Environmental Science & Technology Letters

ADVISORY BOARDS:

- NC Legislature's Cancer Research Advisory Panel member (2019-2020)
- Emerging Contaminants Advisory Board, San Francisco Estuary Institute (2016- present)
- Washington State Department of Health Advisory Board on Flame Retardants (2018-2019)
- Upholstered Furniture Action Council (UFAC) Technical Advisory Board (2018-present)

PROFESSIONAL MEMBERSHIPS

- Member, American Chemical Society
- Member, Association of Environmental Engineering and Science Professors
- Member, Endocrine Society
- Member, International Society for Exposure Science
- Member, Society of Environmental Toxicology and Chemistry
- Member, Society of Toxicology

PUBLICATIONS FROM DUKE:

(Advisor or co-advisor to underlined student/postdoc)

Gardner, C., Hoffman, K., **Stapleton, H.M**., Gunsch, G.K. 2020. Exposures to Semi-Volatile Organic Compounds in Indoor Environments and Associations with the Gut Microbiomes of Children". *Environmental Science & Technology, Letters*, Accepted.

<u>Hall, S.M.</u>, Patton, S., Petreas, M., Zhang, S., Phillips, A.L., Hoffman, K., **Stapleton, H.M.** 2020. Perand polyfluoroalkyl substances in dust collected from residential homes and fire stations in North America. *Environmental Science & Technology*, Accepted.

Kozlova, E.V., Chinthirla, B.D., Gonzalez, G., Krum, J.M., Perez, P., DiPatrizio, N.V., Arugeta, D., Carillo, V., Bishay, A., Basappa, K., Phillips, A.L., **Stapleton, H.M**., Curras-Collazo, M.C. 2020. Maternal Transfer of Environmentally Relevant Polybrominated Diphenyl Ethers (PBDEs) Produces a Diaetic Phenotype and Disrupts Glucoregulatory Hormones and Hepatic Endocannabinoids in Adult Mouse Female Offspring. *Scientific Reports*, Accepted.

Witchey, S.K., Samara, L.A., Horman, B.M, **Stapleton, H.M.**, Patisaul, H.B. 2020. Perinatal Exposure to Firemaster 550 (FM550), Brominated or Organophosphate Flame Retardants Produces Sex and Compound Specific Effects on Adult Wistar Rat Socioemotional Behavior. Horm. Behav. https://doi.org/10.1016/j.yhbeh.2020.104853

Hammel, S.C., Zhang, S., Lorenzo, A.M., Eichner, B., **Stapleton, H.M.**, Hoffman, K. 2020. Young Infant's Exposure to Organophosphate Esters: Breast Milk as a Potential Source of Exposure. *Environ. Internat.*, Accepted.

Wise, C., <u>Hammel, S.</u>, Herkert, N., Ma, J., Motsinger-Reif, A., **Stapleton, H.M.**, Breen, M. 2020. Comparative Exposure Assessment Using Silicone Passive Samplers Indicates Domestic Dogs are

- Sentinels to Support Human Health Research. *Environ. Sci. Technol.*, https://pubs.acs.org/action/showCitFormats?doi=10.1021/acs.est.9b06605&ref=pdf
- Ingle, M.E., Minguez-Alarcon, L., Carignan, C.C., Butt, C.M., **Stapleton, H.M.**, Williams, P.L., Ford, J.B., Hauser, R., Meeker, J.D. 2020. The association of urinary phosphorous-containing flame retardant metabolite and self-reported personal care and household product use among couples seeking fertility treatment. *Journal of Exposure Science & Environmental Epidemiology*, 30: 107-116.
- Rock, K.D., St. Armour, G., Horman, B., Phillips, A., Ruis, A., Stewart, A.K., Jima, D., Muddiman, D.C., **Stapleton, H.M.**, Patisaul, H.B. 2020. Effects of Prenatal Exposure to a Mixture of Organophosphate Flame Retardants on Placental Gene Expression and Serotonergic Innervation in the Fetal Rat Brain. *Toxicological Sciences*, Accepted.
- Phillips, A.L., Herkert, N., Ulrich, J., Hartman, J., Ruis, M., Cooper, E., Ferguson, P.L., **Stapleton, H.M**. 2020. In Vitro Metabolism of ITPs and TBPPs Using Human Liver Subcellular Fractions. *Chemical Research in Toxicology*, https://doi.org/10.1021/acs.chemrestox.0c00002.
- <u>Hammel, S.C.,</u> Hoffman, K., Phillips, A.L., Levasseur, J., Lorenzo, A., Webster, T.F., **Stapleton, H.M.** 2020. Comparing the Use of Silicone Wristbands, Hand Wipes, and Dust to Evaluate Children's Exposure to Flame Retardants and Plasticizers, *Environ. Sci. Technol.*, Accepted.
- Herkert, N.J., Merrill, J., Peters, C., Bollinger, D., Zhang, S., Hoffman, K., Ferguson, P.L., Knappe, D.R.U., **Stapleton, H.M.** 2020. Assessing the Effectiveness of Point-of-Use Residential Drinking Water Filters for Perfluoroalkyl Substances (PFAS). *Environ. Sci. Technol. Letters*, 7, 3, 178-184.
- Blake, B.E., Cope, H.A., <u>Hall, S.M.</u>, Keys, R.D., Mahler, B.W., McCord, J., Scott, B., **Stapleton, H.M.**, Strynar, M.J., Elmore, S.A., Fenton, S.E. 2020. Evaluation of Maternal, Embryo, and Placental Effects in CD-1 Mice Following Gestational Exposure to Perfluorooctanoic acid (PFOA) or Hexafluoropropylene oxide dimer acid (HFPO-DA or GenX). *Environ. Health Perspect.*, Accepted.
- Reddam, A., Tait, G., Herkert, G., <u>Hammel, S.C.</u>, **Stapleton, H.M.,** Volz, D.C. 2020. Longer Commutes are Associated with Increased Human Exposure to Tris (1,3-dichloro-2-propyl) phosphate. *Environ. Internat.* <u>https://doi.org/10.1016/j.envint.2020.105499</u>.
- Escher, B.I., **Stapleton, H.M.**, Schymanski,E.L. 2020. Tracking Complex Mixtures of Chemicals in our Changing Environment. *Science*, Accepted.
- Craig, J., Ceballos, D.M., Fruh, V., Petropoulos, Z.E., Allen, J.G., Calafat, A.M., Ospina, M., **Stapleton, H.M.**, <u>Hammel, S.C.</u>, Gray, R., Webster, T.F. 2019. Exposure of Nail Salon Workers to Phthalates, di(2-ethylhexyl) terephthalate, and organophosphate esters: A pilot study. *Environ. Sci. Technol.*, 53(24): 14630-14637.
- Enicole, S.A., Marinello, W.P., Horman, B.M., <u>Phillips, A.L.</u>, Ruis, M.T., Stapleton, H.M., Reif, D., Patisaul, H.B. 2019. Sex-specific Effect of Perinatal FireMaster550 (FM550) Exposure on Socioemotional Behavior in Prairie Voles. *Neurotoxicology & Teratology*, https://doi.org/10.1016/j.ntt.2019.106840.
- Doherty, B.T., Hammel, S.C., Daniels, J., **Stapleton, H.M**., Hoffman, K. 2019. Organophosphate Esters: Are These Flame Retardants & Plasticizers Affecting Children's Health? *Current Environmental Health Reports*, 6(4) 201-213.

- Blum, A., Behl, M., Birnbaum, L.S., Diamond, M., <u>Phillips, A.L.</u>, Singla, V., Sipes, N., **Stapleton, H.M.**, Venier, M. 2019. Organophosphate Ester Flame Retardants: Are They a Regrettable Substitution for Polybrominated Diphenyl Ethers?" *Environ. Sci & Technol. Letters*, 6(11) 638-649.
- <u>Ruis, M.,</u> Rock, K.D., Hall, S., Horman, B., Patisaul, H.B., **Stapleton, H.M**. 2019. PBDEs Concentrate in the Fetal Portion of the Placenta: Implications for Thyroid Hormone Dysregulation. *Endocrinology*, https://doi.org/10.1210/en.2019-00463.
- Cooper, E.M., Rushing, R., Hoffman, K., Phillips, A.L., Hammel, S.C., Zylka, M.J., **Stapleton, H.M**. 2019. Strobilurin Fungicides in House Dust: Is Wallboard a Source?. *J. Environmental Exposure Science*, https://doi.org/10.1038/s41370-019-0180-z.
- Hammel, S.C., Levasseur, J.L., Hoffman, K., Phillips, A.L., Lorenzo, A.M., Calafat, A.M., Webster, T.F., **Stapleton**, **H.M.** 2019. Children's Exposure to Phthalates and Non-Phthalate Plasticizers in the home: The TESIE study. *Environ. Internat.*, https://doi.org/10.1016/j.envint.2019.105061.
- Bastiaensen, M., Van den Eede, N., Su, G., Letcher, R.J., **Stapleton, H.M.**, Covaci, A. 2019. Towards Establishing Indicative Values for Metabolites of Organophosphate Ester Contaminants in Human Urine. *Chemosphere*, https://doi.org/10.1016/j.chemosphere.2019.124348.
- <u>Phillips, A.L.,</u> **Stapleton, H.M**. 2019. Inhibition of Human Liver Carobxylesterase (hCE1) by Organophosphate Ester Flame Retardants and Plasticizers: Implications for Pharmacotherapy", *Toxicol. Sci.*, 171(2): 396-405.
- de Boer, J., **Stapleton, H.M**. 2019. Toward Fire Safety Without Chemical Risk. *Science*, 364(6437):231-232.
- Doherty, B.T., Hoffman, K., Keil, A.P., Engel, S.M., **Stapleton, H.M.**, Goldman, B., Olshan, A.F., Daniels, J.L. 2019. Prenatal exposure to organophosphate esters and behavioral development in young children in the Pregnancy, Infection and Nutrition Study. *Neurotoxicology*, 73:150-160.
- Mitchell, C., Reddam, A., Dasgupta, S., Zhang, S., **Stapleton, H.M.**, Volz, D. 2019. Diphenyl Phosphate-Induced Toxicity During Embryonic Development. *Environ. Sci. Technol.*, 53(7): 3908-3916.
- <u>Kassotis, C.D., Kollitz, E., Hoffman, K., Sosa, J.A., **Stapleton, H.M.** 2019. Thyroid Receptor Antagonism as a Contributory Mechanism for Adipogenesis Induced by Environmental Mixtures in 3T3-L1 Cells. *Sci. Total Environ.*, 666: 431-444. PMCID: PMC6456385.</u>
- Dembsey, N.A., Brokaw, F.M., **Stapleton, H.M.,** Dodson, R.E., Onasch, J., Jazan, E., Carignan, C.C. 2019. Intervention to Reduce Gymnast Exposure to Flame Retardants from Pit Foam: A Case Study., *Environ. Internat.*, 127: 868-875.
- <u>Kassotis, C.D.,</u> **Stapleton, H.M**. 2019. Endocrine-mediated mechanisms of metabolic disruption and new approaches to examine the public health threat. *Frontiers in Endocrinology*, 07 February 2019; https://doi.org/10.3389/fendo.2019.00039
- Gibson, E.A., **Stapleton, H.M.**, Calero, L., Holmes, D., Burke, K., Martinez, R., Cortes, B., Nematollahi, A., Evans, D., Anderson, K., Herbstman, J.B. 2019. Differential Exposure to Organophosphate Flame Retardants in Mother-Child Pairs. *Chemosphere*, 219:567-573. PMID:30553217

- Doherty, B.T., Hoffman, K., Keil, A.P., Engel, S.M., **Stapleton, H.M.**, Goldman, B.D., Olshan, A.F., Daniels, J.L. 2019. Prenatal Exposure to Organophosphate Esters and Cognitive Development in Young Children in the Pregnancy, Infection, and Nutrition Study. *Environmental Research*, 169: 33-40.
- Lefevre, E., Redfern, L., Cooper, E.M., **Stapleton, H.M**., Gunsch, C.K. 2019. Acetate Promotes Microbial Reductive Debromination of Tetrabromobisphenol A in Anaerobic Wastewater Sludge. *Science of the Total Environment*, 656:959-968.
- Tuttle, A.H., Salazar, G., Cooper, E.M., **Stapleton, H.M.**, Zylka, M.J. 2019. Choice of Vehicle Affects Pyraclostrobin Toxicity in Mice. *Chemosphere*,218:501-506. PMID: 30497033
- Gibson, E.A., **Stapleton, H.M.**, Caler, L., Holmes, D., Burke, K., Martinez, R., Cortes, B., Nematollahi, A., Evnas, D., Herbstman, J.B. 2019. Flame Retardant Exposure Assessment: Findings from a Behavioral Intervention Study. *Journal of Exposure Science & Environmental Epidemiology*, 29(1): 33-48.
- <u>Hammel, S. Phillips, A.</u>, Hoffman, K., **Stapleton. H.M.,** 2018. Evaluating the Use of Silicone Wristbands to Measure Personal Exposure to Brominated Flame Retardants. *Environ. Sci. Technol.*,52:11875-11885. PMCID:PMC6445795
- Kollitz, E., Kassotis, C.D., Hoffman, K., Ferguson, P.L., Sosa, J.A., **Stapleton, H.M**. 2018. Chemical Mixtures Isolated from House Dust Disrupt Thyroid Receptor Beta (TRb) Signaling. *Environ. Sci. technol.*, 52: 11857-11864. PMCID:PMC6433547.
- Stanifer, J.W., **Stapleton, H.M.**, Tomokazu, S., Wittmer, A., Zhao, X., Boulware, L.E. 2018. Perfluorinated Chemicals as an Emerging Environmental Threat to Kidney Health: A Scoping Review. *Clinical Journal of the American Society of Nephrology*, 13(10): 1479-1492. PMCID: PMC6218824
- Messerlian, C., Williams, P.L., Mínguez-Alarcón, L., Carignan, C.C., Ford, J.B., Butt, C.M., Meeker, J.D., **Stapleton, H.M.**, Souter, I., Hauser, R. 2018. Organophosphate Flame Retardant Metabolite Concentrations and Pregnancy Loss Among Women Conceiving with Assisted Reproduction Technology. *Fertility & Sterility*,110(6): 1137-1144. PMID:30396558
- Hoffman, K., <u>Hammel, S.C.</u>, <u>Phillips, A.L.</u>, Lorenzo, A.M., Chen, A., Calafat, A.M., Ye, X., Webster, T.F., **Stapleton, H.M.**, 2018. Biomarkers of Exposure to SVOCs in Children and Their Demographic Associations: The TESIE Study. *Environment International*, 119: 26-36. PMID: 29929048
- Deziel, N., Yi, H., **Stapleton, H.M**., Huang, H., Zhao, N., Zhang, Y. 2018. Exposure to Organophosphate Flame Retardants and Risk of Thyroid Cancer in Women. *BMC Cancer*,18(1):637. PMCID: PMC5989427
- Bruinstroop, E., Dalan, R., Yang, C., Mong Bee, Y., Chandran K., Cho, L., Soh, S.B., Teo, E.K., T., S., L, M.K.S., Sinha, R.A., Sadananthan, S.A., Michael, N., **Stapleton, H.M.**, Leung, C., Angus, P.W., Patel, S.K., Burrell, L.M., Chi, L.S., Fang, S.C., Velan, S.S., Yen, P.M. 2018. Low Dose Levothyroxine Reduces Intrahepatic Lipid Content In Patients with Type 2 Diabetes Mellitus and NAFLK. *Journal of Clinical Endocrinology & Metabolism*.103(7): 2698-2706. PMID:29718334
- <u>Kassotis, C.D.</u>, Nagel, S.C, **Stapleton, H.M.** 2018. Unconventional Oil and Gas Chemicals and Wastewater-Impacted Water Samples Promote Adipogenesis via PPARg-Dependent and Independent Mechanisms in 3T3-L1 Cells. *Science of the Total Environment*, 640-641:1601-1610. PMCID: PMC6197861

- Hoffman, K., **Stapleton, H.M.**, Lorenzo, A., Butt, C.M., Adair, L., Herring, A.H., Daniels, J.L. 2018. Prenatal Exposure to Organophosphates and Associations with Birthweight and Gestational Length. *Environment International*, 116:248-254. PMCID:PMC5971006
- Phillips, A.L., Hammel, S.C., Hoffman, K., Lorenzo, A.M., Chen, A., Webster, T.F., **Stapleton, H.M**. 2018. Children's Residential Exposure to Organophosphate Ester Flame Retardants and Plasticizers: Investigating Exposure Pathways in the TESIE Study. *Environment International*, 116: 176-185. PMCID: **PMC5980657**
- Holzem, R.M., **Stapleton, H.M.**, Gunsch, C.K. 2018. Impacts of Biosolids on Indigenous Agricultural Soil Denitrifyinng Bacteria. *Journal of Environmental Engineering*, 144 (9): 0401809.
- Ingle, M.E., Minguez-Alarcon, L., Carignan, C.C., Butt, C.M., **Stapleton, H.M.**, Williams, P.L., Ford, J.B., Hauser, R., Meeker, J.D. 2018. The Association Between Urinary Concentrations of Phosphorous-Containing Flame Retardant Metabolites and Semen Parameters Among Men from a Check tor Updates Fertility Clinic. *International Journal of Hygiene and Environmental Health*, 221(5): 809-815.
- Mitchell, C.A., Dasgupta, S., Zhang, S., **Stapleton, H.M.**, Volz, D.C. 2018. Disruption of Nuclear Receptor Signaling Alters Triphenyl Phosphate-Induced Cardiotoxicity in Zebrafish Embryos. *Toxicological Sciences*, 163(1): 307-318. PMCID: PMC5920347
- <u>Kollitz, E.M.</u>, De Carbonnel, L., **Stapleton, H.M.**, Ferguson, P.L. 2018. The Affinity of Brominated Phenolic Compounds for Human and Zebrafish Thyroid Receptor β: Influence of Chemical Structure. *Toxicological Sciences*, 163(1): 226-239.
- Holzem, R.M., Gardner, C.M., **Stapleton, H.M**., Gunsch, C.K. 2018. Using a Laboratory-Generated Biosolids to Evaluate the Microbial Ecotoxicity of Triclosan in a Simulated Land Application Scenario. *Environ. Sci & Pollution Research*, 25(11): 11084-11099.
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- Rock, K.D., Horman, B., Phillips, A.L., McRitchie, S.L., Watson, S., Deese-Spruil, J., Sumner, S., **Stapleton**, **H.M.**, Patisaul, H.B. 2018. EDC Impact: Molecular Effects of Developmental FM 550 Exposure in Wistar Rat Placenta and Fetal Forebrain. *Endocrine Connections*, 7(2): 305-324. PMCID: PMC5817967
- Frederiksen, M., **Stapleton**, **H.M.**, Vorkamp, K., Webster, T.F., Jensen, N.M., Sorensen, J.A., Nielsen, F., Knudsen, L.E., Sorensen, L.S., Clausen, P.A., Nielsen, J.B. 2018. Dermal Uptake and Percutaneous Penetration of Organophosphate esters in a Human Skin Ex Vivo Model. *Chemosphere*, 197:185-192. PMID: 29353672
- <u>Leonetti, C.P.</u>, Butt, C.M., **Stapleton, H.M.** 2018. Disruption of Thyroid Hormone Sulfotransferase Activity by Brominated Flame Retardant Chemicals in the Human Choriocarcinoma Placenta Cell Line, BeWo. *Chemosphere*, 197:81-88. PMCID: PMC5811394.
- Carignan, C.C., Minguez-Alarcon, L., Williams, P.L., Meeker, J.D., **Stapleton, H.M.**, Butt, C.M., Toth, T.L., Ford, J.B., Hauser, R. 2018. Paternal Urinary Concentrations of Organophosphate Flame

- Retardant Metabolites, Fertility Measurements, and Pregnancy Outcomes among Couples Undergoing In Vitro Fertilization. *Environ. Internat.*, 111: 232-238.
- Luz, A., <u>Kassotis, C.,</u> **Stapleton, H.M.**, Meyer, J.N. 2018. The High Production Volume Fungicide Pyraclostrobin Induces Triglyceride Accumulation Associated with Mitochondrial Dysfunction, and Promotes Adipocyte Differentiation Independent of PPARg Activation in 3T3-L1 cells. *Toxicology*, 393: 150-159.
- <u>Kassotis, C., Kolllitz, E.,</u> Ferguson, P.L., **Stapleton, H.M.** 2018. Nonionic Ethoxylated Surfactants Induce Adipogenesis in 3T3-L1 Cells, *Toxicological Sciences*, https://doi.org/10.1093/toxsci/kfx234.
- Lefevre, E., Bossa, N., Gardner, C.M., Gehrke, G.E., Cooper, E.M., **Stapleton, H.M.**, Hsu-Kim, H., Gunsch, C.G. 2018. Biochar and activated carbon act as promising amendments for promoting the complete microbial debromination of tetrabromobisphenol A. *Water Resources*, 128: 102-110.
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- Castorina, R., Bradman, A., **Stapleton, H.M.,** Butt, C.M., Avery, D., Harley, K.G., Gunier, R.B., Holland, N., Eskenazi, B. 2017. Current-Use Flame Retardants: Maternal Exposure and Neurodevelopment in Children in the CHAMACOS Cohort. *Chemosphere*. 189:574-580.
- Slotkin, T.A., Skavicu, S., **Stapleton, H.M.,** Seidler, F.J. 2017. Brominated and Organophosphate Flame Retardants Target Different Neurodevelopmental Stages, Characterized with Embryonic Neural Stem Cells and Neuronotypic PC12 cells. *Toxicology*, 390: 32-42.
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- Thomas, M.B., **Stapleton, H.M.**, Dills, R.L., Violette, H.D., Christakis, D.A., Sathyanarayana, S. 2017. Demographic and Dietary Risk Factors in Relation to Urinary Metabolites of Organophosphate Flame Retardants in Toddlers, *Chemosphere*, 185: 918-925.
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- <u>Kassotis, C.</u>, Hoffman, K., **Stapleton, H.M.** 2017. Characterization of Adipogenic Activity of House Dust Extracts and Semi-Volatile Indoor Contaminants in 3T3-L1 Cells. *Environ. Sci. Technol.*, 51(15):8735-3745.
- <u>Siebenaler, R., Cameron, R.</u>, Butt, C.M., Hoffman, K., Higgins, C.P., **Stapleton, H.M.** 2017. Serum Perfluoroalkyl Acids (PFAAs) and Associations with Behavioral Attributes. *Chemosphere*, 184: 687-693.
- Smythe, T., Butt, C.M., **Stapleton, H.M.**, Pleskach, K., Ratnayake, G., Yoon Song, C., Riddell, N., Konstantinov, A., Tomy, G. 2017. Impacts of Unregulated Novel Brominated Flame Retardants on Human Liver Thyroid Deiodination and Sulfotransferation. *Environ. Sci. Technol.*, 51(12):7245-7253.
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PUBLICATIONS PRIOR TO DUKE:

Stapleton, H.M., Dodder, N.G., Kucklick, J., Reddy, C.M., Schantz, M.M., Becker, P.R., Gulland, F., Porter, B.J., Wise, S.A. 2006. Determination of HBCD, PBDEs, and MeO-BDEs in California Sea Lions (*Zalophus californianus*), Stranded Between 1993 and 2003. *Marine Pollution Bulletin*, 52(5):522-531.

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Tuerk, K.J.S., J.R. Kucklick, P.R. Becker, **H.M. Stapleton**, and J.E. Baker. 2005. Persistent organic pollutants in two dolphin species with focus on toxaphene and polybrominated diphenyl ethers. *Environ. Sci. Technol.*, 39(3): 692-698.

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Ashley, J., A. Moore, **H.M. Stapleton**, D. Velinsky, and M. Wilhelm. 2002. Sedimentary nonylphenol contamination in an urbanized/industrialized segment of the Delaware River estuary, USA. *Bull. Environ. Contam. Toxicol.*, 70: 978-984.

Hale, R.C., M. Alaee, J.B. Manchester-Neesvig, **H.M. Stapleton**, and M.G. Ikonomou. 2002. Polybrominated diphenyl ether (PBDE) flame retardants in the North American environment. *Environment International*, 29: 771-779.

Stapleton, H.M., C. Masterson, J. Skubinna, P. Ostrom, N.E.Ostrom, and J.E. Baker. 2001. Accumulation of atmospheric and sedimentary PCBs and toxaphene in a Lake Michigan food web. *Environ. Sci. Technol.*, 35(16): 3287-3293.

Stapleton, H.M, J. Skubinna, and J.E.Baker. 2001. Seasonal dynamics of PCB and toxaphene bioaccumulation within a Lake Michigan food web. *J. Great Lakes. Res.*, 28(1): 52-64.

Stapleton, H.M, R.J.Letcher, and J.E.Baker. 2001. Metabolism of highly chlorinated PCBs by a Lake Michigan fish. *Environ. Sci. Technol.*, 35(24): 4747-4752.

Schneider, A.R., **H.M. Stapleton**, J. Cornwell and J.E. Baker. 2001. Recent declines in PAH, PCB, and Toxaphene levels in the Northern Great Lakes as determined from high resolution sediment cores. *Environ. Sci. Technol.*, 35(19): 3809-3815.

REPORTS AND BOOK CHAPTERS:

Flame Retardants: PBDEs and Their Replacements. Webster, T.F. and **H.M. Stapleton**. Chapter 4 In: "Dioxins, Other Persistent Organic Pollutants and Health, 3rd Ed.", Edited by Dr. Arnold Schecter. Published by John Wiley & Sons, Inc. (2012)

Degradation of Decabromodiphenyl Ether (BDE 209) in House Dust Following Sunlight Exposure. (2005) Report Prepared for the Environment Agency, Chemical Assessment Section, United Kingdom.

INVITED TALKS, SEMINARS, & WEBINARS

Exposures in the Home Environment: What should we be worried about? Invited seminar, University of Maryland Center for Environmental Science, Chesapeake Biological Laboratory, Solomons, MD. October 22nd, 2019.

Exposure Indoors: The Influence of Building Materials and Consumer Product Use. Invited talk, AAAS Symposium: Chemistry of the Indoor Environment. September 19th, 2019, Washington DC.

Chemical Exposures in the Home Environment: What should we be worried about? Invited seminar, Yale University, September 18, 2019.

Thyroid Cancer Across NC: Are Environmental Exposures Playing a Role? Invited talk with NC legislative members, NC Legislative Office Building, June 11, 2019.

Chemical Exposures in the Home Environment: What should we be worried about? Invited seminar, Stanford University, June 3rd, 2019.

Flame Retardant Use in Residential Furniture: New Policies, New Flame Retardants and What it Means for Exposure, Invited Plenary presentation at the annual Flame Retardant Conference, Montreal, Canada, May 16th, 2019.

GenX and Legacy PFAS Chemicals in our Drinking Water: Effectiveness of Point-of-Use Residential Filters in Their Removal. Invited talk, Air and Waste Management Association Regional Meeting, Raleigh, NC, April 30th, 2019.

Effects of Brominated Flame Retardants on Thyroid Regulation in the Placenta. Plenary talk at the annual North Carolina Endocrine Disruptors Conference, NIEHS, April 5th, 2019.

Children's Exposure to Chemicals Emitted from the Home Environment. Invited talk at the AAAS Annual Conference, Washington, DC, February 17th, 2019.

Exposure to Mixtures of Chemicals in the Indoor Environment: How Do We Move the Science Forward?; Helmholz Research Centre, Leipzig, Germany, February 6, 2019.

Exposure to SVOCs in the Indoor Environment: Is House Dust Unhealthy?; Harvard University School of Public Health, Boston, MA. November 28, 2018.

Using Silicone Wristbands to Predict Personal Exposures to Flame Retardants, Phthalates and Polyfluorinated Chemicals. University of Buffalo, Buffalo, NY. October 26, 2018.

Disruption of Thyroid Hormone Regulation at the Maternal: Fetal Barrier of the Placenta: The Impact of Contaminants on Fetal Development. Duke Medical Center Neonatal Grand Rounds, August 17, 2018.

Flame Retardant Use in Consumer Products and Exposure in the US Population; Washington State Legislature Flame Retardant Advisory Meeting, Webinar, June 15, 2018.

Using Non-Targeted Mass Spectrometry to Evaluate Children's Exposure in the Home Environment; Non-Targeted Mass Spectrometry Workshop, Niagara on the Lake, Canada; May 23, 2018.

Investigating Toddler's Exposure to Flame Retardants in the Home Environment; Underwriters Laboratory, Chicago, Illinois, May 8, 2018.

Exposure to Flame Retardant Chemicals & Risk for Papillary Thyroid Cancer; V Foundation, Cary, NC. March 21, 2018.

Per- and Polyfluoroalkyl Substances (PFASs): An Emerging Threat to Children's Health?, University of Stockholm, Sweden. March 16, 2018.

"Flame Retardant Chemicals in Consumer Products: Use, Exposure and Potential Links with Papillary Thyroid Cancer", University of Manitoba, Winnipeg, Canada. January 26th, 2018.

"Flame Retardant Uses in Furniture & Residential Exposure". Invited presentation to the Furniture Flammability Summit Sponsored by Underwriters Laboratory, Atlanta, GA, December 12-13th, 2017.

"Flame Retardant Exposure and Risk for Papillary Thyroid Cancer". Invited presentation to the

Environmental Health Symposium, Durham, NC, December 1, 2017.

"Flame Retardant Exposure and Risk for Papillary Thyroid Cancer". Invited presentation to the Cancer Control & Population Sciences Working Group, Duke University, October 23, 2017.

"Flame Retardant Chemicals: Exposures & Health Concerns". Invited presentation at the National Fire Protection Association Special Symposium. Boston, MA, June 6, 2017.

"Flame Retardant Chemicals in Residential Furniture: Exposure & Health Concerns." Testimony presented to the National Fire Protection Association Technical Committee, May 25th, 2017.

"Flame Retardant Exposures and Risk for Papillary Thyroid Cancer" Invited presentation at the International Thyroid Oncology Group, Durham, NC, April 29, 2017.

"Flame Retardant Chemicals: Use, Exposure and Health Concerns". Presented to the Environmental Committee of the Washington State House of Representatives, April 13, 2017.

"Sex-Specific Accumulation of Brominated Flame Retardants in Human Placental Tissues: Associations with Thyroid Hormones". Invited talk at the ITEHP Spring Symposium on Sex-Specific Effects in Toxicology, March 24, 2017.

"Human Exposure to Flame Retardant Chemicals: Concerns for Thyroid Dysregulation and Thyroid Cancer". Invited talk at the University of Wisconsin School of Medicine and Public Health, Madison, WI, February 18th, 2017.

"Flame Retardant Chemicals: Use, Exposure and Potential Links with Thyroid Cancer". Invited Seminar at Pittsburgh University, Environmental Engineering Department, Pittsburgh, PA. January 13, 2017.

"Associations Between Brominated Flame Retardants and Thyroid Hormones in Human Placental Tissues: Sex-Specific Differences?" Webinar sponsored by the Collaborative on Health and the Environment. January 18, 2017.

"Sex-Specific Accumulation of Brominated Flame Retardants in Human Placental Tissues and Associations with Thyroid Hormone Levels". NIEHS Environmental Health Science Fest, Durham, NC Dec. 5-8th, 2016.

"Flame Retardant Chemicals: Sources, Exposure and Impacts on Thyroid Hormone Regulation", Invited Seminar at Indiana University, School of Public & Environmental Affairs, Bloomington, IN, November 2nd, 2016.

"Flame Retardant Applications in Camping Tents and Residential Furniture: Are There Concerns for Human Exposure and Health Effects?". Presented at the Association of Textile, Apparel, and Materials Professionals Flammability Meeting, Research Triangle Park, NC, September 22nd, 2016.

"Brominated Flame Retardants in Placenta Tissues: Associations with Thyroid Deiodinase and Sulfotransferase Activities". Presented at the Gordon Conference on Endocrine Disruptors, Newbry, ME, June 23rd, 2016.

"Flame Retardant Chemicals: Uses in Consumer Products and Human Exposure Concerns". Presented at the annual conference of the International Association of Bedding and Furniture Law Officials (IABFLO) in Philadelphia, PA on April 28th, 2016.

"Identifying Flame Retardant Chemicals in Consumer Products and Understanding Human Exposure Pathways", Presented to the Department of Toxic Substances Control in Sacramento, CA, April 14th, 2016.

"Exploring Links Between Flame Retardant Exposures & Thyroid Cancer", Presented at Grand Rounds, Duke Medicine Hematology Oncology Grand Rounds, March 30, 2016.

"Flame Retardant Chemicals: Use in Consumer Products and Human Health Concerns", Presented to the Environmental Review Committee of the North Carolina State Legislature, LOB room 544, March 9, 2016

"Flame Retardant Application in Residential Furniture and Electronics: Linking Sources to Human Exposure", Invited Seminar at Oregon State University, February 22, 2016

"Flame Retardants in Your Home, Weighing out the Risks". Science Café, NC Museum of Natural Sciences, Raleigh, NC, February 11, 2016.

"Identification of Flame Retardant Additives in Consumer Products Using Mass Spectrometry and Understanding Human Exposure Pathways", Pacifichem Conference, Honolulu, HI, December 17, 2015.

"Flame Retardant Chemical Applications in Residential Furniture and Electronics: Linking Sources to Human Exposure", Keynote Speaker at the International Symposium on Persistent Toxic Substances, UC Riverside, CA, November 17 2015.

"Brominated Flame Retardant Exposures and Associations with Thyroid Hormone Regulation in Placental Tissues: Insights from In Vivo and In Vitro Studies", Invited Speaker at the Environmental Protection Agency, RTP, NC, October 15, 2015.

"The Evolving Science of Flame Retardant Chemicals", Invited Speaker at the annual American Home Furnishings Alliance Conference, Hickory, NC, October 1, 2015.

"Exploring Links Between Flame Retardant Exposures and Thyroid Cancer", ITEHP Spring Symposium, Duke University, April 3rd, 2015.

"Flame Retardant Use in Consumer Products: Beneficial or Potentially Toxic?", Carnegie Science Center, Pittsburgh, PA, April 21st, 2015.

"Flame Retardant Use in Consumer Products: Beneficial or Potentially Toxic?", NC Society of Toxicology Spring Meeting, Research Triangle Park, NC, February 23, 2015.

"The Flame Retardant Saga: Is TSCA Reform Needed?", Duke NSOE Back to Class Event, Washington DC, December 9, 2014.

"Children's Exposure to Flame Retardant Chemicals and Potential Health Effects", EPA Webinar on Children's Health, November 12, 2014.

"Debromination of DecaBDE (BDE-209) in the Environment", United Nations Persistent Organic Pollutant Review Committee (POPRC10), Rome, Italy, October 27, 2014.

"Human Biomonitoring for Firemaster 550 and Potential Endocrine Disrupting Effects", Keynote

Speaker at the Brominated Flame Retardant Conference, Indianapolis, IN, June 24, 2014.

"Human Exposure to Flame Retardants Used in Upholstered Furniture". Underwriters Laboratory Sponsored Meeting on Flame Retardants in Upholstered Furniture, Atlanta, GA, May 21, 2014.

"Environmental Concerns Regarding Chemical Flame Retardants". Fire Retardant Technology Symposium, Preston, U.K., April 15, 2014.

"Exposure and Endocrine Disrupting Effects of Flame Retardant Chemicals Used in Upholstered Furniture", National Toxicology Program, March 19, 2014.

Human Exposure to Flame Retardant Chemicals and Potential Health Effects. NC State Toxicology Department, February 4, 2014.

"Re-evaluating Perspectives and Definitions of "Persistence". PBT Panel, Washington DC, January 17, 2014.

"Identifying Flame Retardant Chemicals in Consumer Products by Mass Spectrometry and Novel Insights into Human Exposure Pathways". ASMS Asilomar Conference, October 20, 2013.

"Identification of Flame Retardant Chemicals Used to Meet the CA TB 117 Flammability Standard and Implications for Human Exposure". Underwriters Laboratory Sponsored Meeting on Flame Retardants in Upholstered Furniture, Atlanta, GA, April 17, 2013.

"New Findings on Flame Retardants in Consumer Products, Dust and Biospecimens", CA Biomonitoring Program Biannual Meeting, April 11, 2013.

"Children's Exposure to Flame Retardant Chemicals: What are the Risks?". UNC Chapel Hill, Gillings School of Public Health, January 23, 2013.

"Human Exposure & Health Effects Associated with Flame Retardants Commonly Applied to Upholstered Furniture", ASTM Meeting, Atlanta, GA, December 4, 2012.

"Exposure to Flame Retardants: Do Fire Safety Benefits Outweigh the Health Risks?". Invited Seminar, Arnold School of Public Health, University of South Carolina, Columbia, S.C. December 3, 2010.

"Environmental Forensics: Using Mass Spectrometry to Identify Potentially Hazardous Flame Retardant Chemicals in Consumer Products". Invited Seminar, Hamilton College. October 8, 2010.

"Fate and Transport of Brominated Flame Retardant Chemicals in the Environment: Implications for Human Exposure". Invited Seminar, Chemistry Department, Wake Forest University, Winston-Salem, NC, February 4, 2009.

"Human Exposure to Brominated Flame Retardants: Sources, Pathways and Consequences". Invited Seminar in the department of Human and Occupational Health, University of Washington, Seattle. September 28, 2008.

"Debromination of the Flame Retardant Decabromodiphenyl Ether: Is it Environmentally Relevant", Plenary Speaker, International Symposium on Halogenated Persistent Organic Pollutants (Dioxin 2008), Birmingham, United Kingdom, August 2008.

"The Environmental Fate and Biotransformation of Brominated Flame Retardants" Invited Seminar in the Environmental and Molecular Toxicology Department at NC State, Raleigh, NC. December 2007.

"The Flame Retardant Decabromodiphenyl Ether: The Extent and Significance of Debromination". Presented at the Natural Environmental Resource Council Annual POPs Network Meeting. University of Birmingham, U.K. July 11, 2007.

"The Flame Retardant Decabromodiphenyl Ether: New Insights on Exposure, Toxicology and Environmental Fate". Presented at the National Caucus of Environmental Legislators Semi-annual Meeting. November 2006.

"Bioaccumulation Potential of Natural and Anthropogenic Brominated Compounds in Aquatic Food Webs: Friends or Foe?" Presented at the Gordon Research Conference on Biogeochemistry, August 2006.

"The Environmental Fate, Transport and Transformation of Brominated Flame Retardants" (October 4, 2006) Oberlin College, Oberlin, Ohio.

"Biotransformation of the Flame Retardant Chemicals PBDEs: Debromination in Fish and Humans" (Jan. 25th, 2006). Carleton University, Ottawa, Ontario, Canada.

"Determination of Anthropogenic and Naturally Produced Brominated Compounds in California Sea Lions Stranded Between 1993 and 2003" (Nov. 2005). 2005 International Environmental Specimen Banking Symposium, Charleston, SC.

"PBDE Exposure and Accumulation in Fish: The Impact of Biotransformation" (Sept. 2005) 2005 National Forum on Contaminants in Fish, sponsored by the Environmental Protection Agency.

"DecaBDE: Human Exposure and Debromination Potential in the Environment" (July 2005) Technical Briefing to the Illinois State Environmental Protection Agency regarding regulation of DecaBDE.

"Monitoring Brominated Flame Retardants in the Environment" (May 2005) NOAA sponsored workshop to Identify Emerging Contaminants of Concern and their Implications for the Estuarine/Marine Environment and Human Health. Charleston, SC

"The Environmental Fate and Biotransformation of Brominated Flame Retardants in Fish" (March 2005), St. Mary's College of Maryland.

"Brominated Flame Retardants: Environmental Fate and Analtyical Uncertainties" (February 2005), Washington D.C. Chromatography Discussion Group, Rockville, MD.

Bioaccumulation of brominated flame retardants in aquatic food webs. (October 2002). Emerging Contaminants Workshop sponsored by the E.P.A.'s Toxic Subcommittee and the Chesapeake Bay Program, Solomons, MD.

Using stable isotopes to tracers of organic contaminant dynamics in the Great Lakes. Presented at the Horn Point Environmental Laboratory in Cambridge, Maryland. (November 2001).

PRESENTATIONS AT NATIONAL AND INTERNATIONAL CONFERENCES:

Stapleton, H.M., Jeremiason, J.D., and Baker, J.E. (1998) PCB accumulation in the food web of Grand

- Traverse Bay, Lake Michigan: Investigating current sources. Presented at the 41st Annual IAGLR Conference in Hamilton, Ontario.
- **Stapleton, H.M.,** Jeremiason, J.D., and Baker, J.E. (1998) Organochlorine accumulations within the food web of Grand Traverse Bay, Lake Michigan: Investigating current sources." Presented at the SETAC 19th Annual Meeting in Charlotte, N.C.
- **Stapleton, H.M.**, Cohen, A.R., Cornwell, J., Jeremiason, J.D., and Baker, J.E. (1999) Loadings of PAHs, PCBs, and Toxaphene in Sediment Cores Collected from Grand Traverse Bay, Lake Michigan. Presented at the 42nd Annual Conference of the International Association for Great Lakes Research in Cleveland. Ohio.
- **Stapleton, H.M.,** Jeremiason, J.D., Ostrom, N.E., and Baker, J.E. (1999) "Organochlorine burdens in the food web of Grand Traverse Bay, Lake Michigan." Presented at the 42nd Annual Conference of the International Association for Great Lakes Research in Cleveland, Ohio.
- **Stapleton, H.M.**, and J.E. Baker. (2000) Evidence supporting PCB metabolism within deepwater sculpin in Grand Traverse Bay, Lake Michigan. Presented at the 21st annual SETAC meeting in Nashville, TN.
- **Stapleton, H.M,** R.J. Letcher, and J.E. Baker. (2001) Formation and bioaccumulation of methylsulfonyl PCBs in Lake Michigan Fish. Presented at the 44th annual International Association of Great Lakes Research in Green Bay, Wisconsin.
- **Stapleton, H.M.,** C. Masterson, J. Skubinna and J.E. Baker. (2000). Using stable isotopes to measure pelagic-benthic coupling of HOCs in Lake Michigan. Presented at the American Society of Limnology and Oceanography's summer meeting in Copenhagen, Denmark.
- **Stapleton, H.M.**, P. Ostrom, C. Masterson, J. Skubinna and J. E. Baker. (2000). Accumulation fo atmospheric and sedimentary PCBs and Toxaphene in a Great Lakes food web. Presented at the 20th International Symposium on Halogenated Environmental Organic Pollutants and POPS in Monterey, California.
- **Stapleton, H.M.** and J.E. Baker. (2001) Comparing the temporal trends, partitioning and biomagnification of PBDEs and PCBs in Lake Michigan. Presented at the 3rd annual Brominated Flame Retardant Conference in Burlington, Ontario.
- **Stapleton, H.M.** and J.E. Baker. (2001). Accumulation of Polybrominated diphenyl ethers in a Lake Michigan food web. Presented at the 22nd annual SETAC meeting in Baltimore, MD.
- **Stapleton, H.M**., R.J. Letcher and J.E. Baker. (2002). Uptake, metabolism and depuration of PBDE congeners by the common carp (*Cyprinus carpio*). Presented at the 4th annual Brominated Flame Retardant conference in Burlington, Ontario.
- **Stapleton, H.M.,** R.J. Letcher and J.E. Baker, (2002). Uptake, metabolism and depuration of PBDE congeners by the common carp (*Cyprinus carpio*). Presented at the 22nd International Symposium on Halogenated Environmental Organic Pollutants and POPs in Barcelona, Spain.
- **Stapleton, H.M.,** R. J. Letcher and J.E. Baker. (2002). Uptake, metabolism and depuration of PBDE congeners by the common carp (*Cyprinus carpio*). Presented at the 23rd annual SETAC meeting in Salt Lake City, Utah.

- Moore, A., J. Ashley, **H.M. Stapleton**, and D. Velinsky. (2002). Assessing nonylphenol contamination in sediment from the Schuykill and Delaware River. Presented 23rd annual SETAC meeting in Salt Lake City, Utah.
- Tuerk, K.J.S., J. Kucklick, **H.M. Stapleton** and J.E. Baker. (2002). Toxaphene and PBDEs in Atlantic white-sided dolphins and rough-toothed dolphins. Presented at the 23rd annual SETAC meeting in Salt Lake City, Utah.
- Klosterhaus, S., **H.M. Stapleton** and J.E. Baker. (2002) PCB, PBDE and organochlorine concentrations in marine invertebrates and juvenile fish from the Antarctic peninsula. Presented at the 23rd annual SETAC meeting in Salt Lake City, Utah.
- **Stapleton, H.M.**, R.J.Letcher and J.E. Baker. (2003) Debromination of the flame retardant decabromodiphenyl ether by juvenile carp (*Cyprinus carpio*). Presented at the 23rd International Symposium on Halogenated Environmental Organic Pollutants and POPs in Boston, MA.
- **Stapleton, H.M**, and J.E. Baker (2003) Debromination of polybrominated diphenyl ether congeners by the common carp. Presented at the 24th annual SETAC meeting in Austin, Texas.
- **Stapleton, H.M.,** N.G. Dodder, M.M. Schantz and S.A. Wise (2004) Measurement of polybrominated diphenyl ethers in Household Dust. Presented at the 3rd International Workshop on Brominated Flame Retardants in Toronto, Canada.
- **Stapleton, H.M.,** N.G. Dodder, J.H. Offenberg, M.M. Schantz and S.A. Wise (2004) Polybrominated diphenyl ethers and HBCD in House Dust. Presented at the 24th International Symposium on Halogenated Environmental Organic Pollutants and POPs in Berlin, Germany.
- **Stapleton, H.M.**, J. Kucklick, N.G. Dodder, B. Porter, F. Guland, M.M. Schantz and S.A. Wise. (2004) Temporal trends in HBCD, PBDEs and Methoxylated PBDEs in California Sea Lion Blubber. Presented at the 25th annual SETAC meeting in Portland, Oregon.
- **Stapleton**, **H.M.**, J. M. Keller, J.R. Kucklick, M.M. Schantz and S.A. Wise (2004) Measurement of PBDEs in Environmental Matrix Standard Reference Materials. Presented at the 25th annual SETAC meeting in Portland, Oregon.
- **Stapleton, H.M.**, J.M. Keller, J.R. Kucklick and M.M. Schantz. (2005) Indoor Dust and Fish Tissue Standard Reference Materials Certified for PBDEs. Presented at the 25th International Symposium on Halogenated Environmental Organic Pollutants and POPs in Toronto, Canada.
- **Stapleton, H.M**, B. Brazil, S. Anderson, R. Benedict, C. Mitchelmore and D.R. Holbrook. (2005) In Vivo and In Vitro Debromination of Decabromodiphenyl Ether (BDE 209) in Juvenile Rainbow Trout. Presented at the 25th International Symposium on Halogenated Environmental Organic Pollutants and POPs in Toronto, Canada.
- **Stapleton, H.M.**; B.Brazil, R. Benedict, C. Mitchelmore and D.R. Holbrook. (2005) Uptake and Debromination of Decabromodiphenyl Ether in Juvenile Rainbow Trout: Assimilation and Biotransformation. Presented at the 26th Annual SETAC meeting in Baltimore, Maryland.
- **Stapleton**, **H.M**.; N.G. Dodder. (2006) Photodegradation of Decabromodiphenyl Ether (BDE 209) in Natural and Amended House Dust. Presented at the 8th annual Brominated Flame Retardants Workshop in Toronto, Ontario, Canada.

- **Stapleton, H.M**. (2006) Bioaccumulation Potential of Natural and Anthropogenic Brominated Compounds in Aquatic Food Webs: Friend or Foe?. Presented at the Gordon Research Conference on Organic Geochemistry.
- **Stapleton, H.M.**; N.G. Dodder. (2006) Photodegradation of Decabromodiphenyl Ether (BDE 209) in Natural and Amended House Dust. Presented at the 26th International Symposium on Halogenated Environmental Organic Pollutants and POPs in Oslo, Norway.
- **Stapleton, H.M.**, S. Kelly, C. Mitchelmore. (2007) Biotransformation of PBDEs in Fish and Human Liver Microsomes. Presented at the 4th International Workshop on Brominated Flame Retardants, Amsterdam, The Netherlands.
- **Stapleton, H.M.**, S. Kelly, C. Mitchelmore (2007). In Vitro Debromination of PBDEs in Carp Liver. Presented at the annual Society of Environmental Toxicology and Chemistry (SETAC) meeting, Milwaukee, WI.
- **Stapleton, H.M.**, S. Kelly, J.G. Allen, M. McClean, T.F.Webster (2007). Indoor Exposure and Fate of a New Class of POPs: PBDEs. Presented at the annual Society of Environmental Toxicology and Chemistry (SETAC) meeting, Wilwaukee, WI.
- **Stapleton, H.M.**, J.G. Allen, S. Kelly, A. Konstantinov, S. Klosterhaus, D. Watkins, M. McClean, T. F. Webster. (2008). Alternate and New Brominated Flame Retardants Detected in U.S. House Dust, Presented at the 28th International Symposium on Halogenated Persistent Organic Pollutants (Dioxin), Birmingham, United Kingdom.
- Wang, D., **H.M. Stapleton**. (2009) Analysis of Thyroid Hormones in Serum by Isotope-Dilution Liquid Chromatography Tandem Mass Spectrometry. Presented at the annual Society of Environmental Toxicology and Chemistry (SETAC) meeting, New Orleans, LA.
- **Stapleton, H.M.,** S. Eagle, A. Wolkin, M.L. Miranda. (2010) Serum PBDE Levels in Pregnant Women: Associations with Thyroid Hormones. Presented at the 4th International Brominated Flame Retardants Workshop in Kyoto, Japan.
- **Stapleton, H.M.,** E. M. Cooper, L.Dishaw, F. J. Seidler, T. Slotkin, T. F. Webster. (2010) Tris (1,3-dichloroisopropyl) phosphate, a PentaBDE Replacement: Detection in Consumer Products, Human Metabolism and Neurodevelopmental Effects.
- **Stapleton, H.M.**, S. Klosterhaus, A. Keller, S. van Bergen, E. Cooper, A. Blum and T.F. Webster (2010). Identification of Flame Retardants in Polyurethane Foam Collected From Baby Products. Presented at the 30th International Symposium on Halogenated Environmental Organic Pollutants and POPs in San Antonio, TX.
- **Stapleton, H.M.,** S. Eagle, R. Anthopolos, A. Wolkin, M.L. Miranda. (2010) Serum PBDE Levels in Pregnant Women: Associations with Thyroid Hormones. Presented at the annual Society of Environmental Toxicology and Chemistry (SETAC) meeting, Portland, OR.
- **Stapleton, H.M.,** S. Eagle, A. Sjodin, and T.F. Webster (2011) US Toddler Exposure to PBDE Flame Retardants: Associations with House Dust, Hand Wipes and Social/Economic Variables. Presented at the annual Society of Environmental Toxicology and Chemistry (SETAC) meeting, Boston, MA.

Stapleton, H.M., S. Klosterhaus, A. Keller, S. VanBergan, P.L. Ferguson, E.M. Cooper, T.F. Webster and A. Blum. (2011) Current Use Flame Retardants: Chemicals Used in Polyurethane Foam and their Measurements in Indoor Environments. Invited presentation at the annual Society of Environmental Toxicology and Chemistry (SETAC) meeting, Boston, MA.

Stapleton, H.M. S.C. Roberts, H.Patiaul. (2012) Developmental Exposure to Firemaster 550: Uptake, Metabolism and Toxicity. Presented at the annual Brominated Flame Retardant Conference, Winnipeg, Canada.

Stapleton, H.M. J. Misenheimer, T.F. Webster. (2013) Toddler's Exposure to PentaBDE Replacements From Indoor Dust and Hand to Mouth Contact. Presented at the annual Brominated Flame Retardant Conference, San Francisco, CA.

POPULAR PRESS COVERAGE:

"Tracking Everyday Chemical Exposures", April 18, 2016. Chemical & Engineering News

"Tents Expose Campers to Toxic Flame Retardants", May 21, 2016; Newsmax.

"You Asked: Can My Couch Give Me Cancer", August 24, 2016, Time

"Flame Retardant Chemicals Found in more People", February 13, 2017, Consumer Reports.

"Chemicals Lurking in Household Dust May Prime Cells to Store Fat", July 23, 2017, Popular Science

"Duke Scientists Explore Cancer Link to Flame-Retardants", October 26, 2017. NC Health News.

"Household Chemicals Pose Health Hazards", February 17, 2019, AAAS.org

"Researchers Document Unregulated Chemicals in Pittsboro Water", September 26, 2019. WUNC

OTHER SERVICE ACTIVITIES:

Community events:

Speaker, Pittsboro Town Hall forum on chemicals in drinking water (October 2019)

Speaker, Pittsboro City Board Meeting (September 2019)

Speaker, Town of Mooresville, North Carolina town hall meetings on thyroid cancer (February and May 2019)

National/International events:

Invited guest at the United Nations Persistent Organic Pollutants Review Committee (POPRC10) (October 2014, Rome, Italy)

Senate testimony provided for the Environmental & Public Works committee (July 2012, Washington DC) Organized the 7th annual North American Workshop on Brominated Flame Retardants, held June 13-15, 2005 at NIST in Gaithersburg, MD (165 participants)

Duke events:

Panel member on "Finding a Balance - Juggling Competing Professional and Personal Priorities and Maintaining Wellness", Duke University; 09/09/20

Panel member on "Communicating Public Scholarship", Duke University: 10/13/17

Participated in Ethics Training for PhD students and postdoctoral researchers (Duke Univ. 2010)

Assisted in "Durham School Days", an educational opportunity for local Durham 8th grade students to motivate them to pursue college (10/23/08). Sponsored a project on "Environmental Pollution and Engineering Careers".

FEMMES (Females Excelling More in Math, Engineering and Science). Co-sponsored a project called "Build Your Own Aquifer: Lessons on Water Pollution". (2007, 2008)

Proposal Reviewer: NIH, NOAA, Environment Canada, Health Canada

Ad hoc Journal Reviewer: Environmental Science & Technology, Environmental Science & Technology Letters, Chemosphere, Marine Pollution Bulletin, Environment International, Analytical and Bioanalytical Chemistry, Environmental Health Perspectives, Environmental Health, Talanta, Toxicological Sciences, Environmental Toxicology & Chemistry

COLLABORATORS:

- Dr. Joseph Allen, Harvard University School of Public Health
- Dr. Kim Anderson, Oregon State University, Corvallis, OR
- Dr. Jeff Ashley, Philadelphia University and the Natural Academy of Sciences
- Dr. Scott Belcher, North Carolina State University, Raleigh, NC
- Dr. Linda Birnbaum, National Institute of Environmental Health Sciences, RTP, NC
- Dr. Arlene Blum, Green Science Policy Institute, Berkeley, CA
- Dr. Asa Bradman, University of California, Berkeley, Berkeley, CA
- Dr. Antonia Calafat, Centers for Disease Control & Prevention, Atlanta, GA
- Dr. Adrian Covaci, University of Antwerp, Belgium.
- Dr. Julie Daniels, University of North Carolina, Chapel Hill
- Dr. Richard Di Giulio, Duke University, Durham, NC
- Dr. Beate Escher, Helmholz Center for Environmental Research, Leipzig, Germany
- Dr. Brenda Eskenazi, University of California, Berkeley, Berkeley, CA
- Dr. P. Lee Ferguson, Duke University, Dept. of Civil and Environmental Engineering
- Dr. Rebecca Fry, University of North Carolina, Chapel Hill
- Dr. Evan Gallagher, University of Washington at Seattle, Seattle, WA.
- Dr. Claudia Gunsch, Duke University, Dept. of Civil and Environmental Engineering
- Dr. Russ Hauser, Harvard University
- Dr. Christopher Higgins, Colorado School of Mines
- Dr. Jane Hoppin, North Carolina State University, Raleigh, NC
- Dr. Heileen Hsu-Kim, Duke University, Durham, NC
- Dr. Jennifer Keller, National Institute of Standards and Technology, Charleston, SC
- Dr. Detlef Knappe, North Carolina State University, Raleigh, NC
- Dr. John R. Kucklick, National Institute of Standards and Technology, Charleston, SC
- Dr. Seth Kullman, North Carolina State University, Raleigh, NC
- Dr. Robert J. Letcher, Carleton University, Ottawa, Canada
- Dr. Edward Levin, Duke University Medical Center, Durham, NC
- Dr. Michael D. McClean, Boston University School of Public Health
- Dr. John Meeker, University of Michigan, School of Public Health
- Dr. Joel Meyer, Duke University, Durham, NC
- Dr. Marie Lynn Miranda, Rice University
- Dr. Carys Mitchelmore, University of Maryland, Center for Environmental Sciences
- Dr. Andy Olshan, University of North Carolina, Chapel Hill
- Dr. Heather Patisaul, N.C. State University, Raleigh, NC
- Dr. Julie Ann Sosa, University of California, San Francisco, San Francisco, CA

- Dr. Andreas Sjödin, Center for Disease Control, NCEH
- Dr. Avner Vengosh, Duke University, Durham, NC
- Dr. David Volz, University of California, Riverside, CA
- Dr. Tom Webster, Boston University School of Public Health
- Dr. Mark Zylka, University of North Carolina, Chapel Hill

CLASSES TAUGHT:

ENV 360 Environmental Toxicology & Chemistry

ENV 540 Fate of Organic Chemicals in the Environment

ENV 780 Environmental Exposure Analysis

ENV 899.07 Environmental Health & Ecotoxicology Seminar for MEM students

THESIS ADVISORS:

M.S. and Ph.D. Advisor: Dr. Joel Baker, University of Maryland, Center for Environmental Science PostDoc Advisor: Dr. Michele Schantz, National Institute of Standards and Technology

GRADUATE STUDENTS ADVISED

Master's Students:

Josie Bamford, (May 2007)

YuChun Kuo, (December 2011)

Lauren Gloeckler, (May 2013)

John Misenheimer, (May 2013)

Zhuoyuan Chen, (May 2014)

Brit'Ny Hawkins, (May 2014)

Genna Gomes (May 2015)

Peyton Ward (May 2015)

Rebecca Siebenaler (May 2016)

Rochelle Cameron (May 2016)

Meredith Frenchmeyer (May 2017)

Bridget Flaherty (May 2017)

Allison Killilus (May 2017)

Qianyi Xia (May 2019)

Stella Wang (May 2020)

Wanchen (Connie) Xiong (May 2020)

Chengyang (Jared) Wang (May 2020)

PhD Students:

Ellen Cooper, (May 2009)

Elizabeth Davis (May 2013)

Pam Noyes, (May 2013)

Simon Clay Roberts, (August 2014)

Laura Dishaw (May 2015)

Laura Macaulay (July 2015)

Mingliang Fang (May 2015)

Chris Leonetti (July 2016)

Stephanie Hammel (July 2019)

Allison Phillips (February 2019)

Matthew Ruis

Kirsten Overdahl

Samantha Hall

Jessica Levasseur Taylor Schronce Shaza Gaballah

UNDERGRADUATE STUDENTS INDEPENDENT STUDY PROJECTS

John Blades, Chemistry (2007)
Aminah Cherry, Arts & Sciences (2007)
Stephen Lubin, Chemistry (2008)
Jenifer Fuh, Arts & Sciences (2011)
Olay Ayinksku (2011)
Alex Keller (2012)
Matthew Mrozek(2012)
Katharine Gifford (2014)
Nikalesh Raju (2013)
Amy Trey (2015)
Tom Neufeld (2015)

Deanna Badger (2016) Cara Peters (2019)

POSTDOCTORAL RESEARCH ASSOCIATES

Dr. Dongli Wang (2009-2010)

Dr. Wu Dong (2011-2014)

Spencer Pecha (2015)

Dr. Craig Butt (2010-2014)

Dr. Kate Hoffman (2013-2014)

Dr. Erin Kollitz (2014-2018)

Dr. Christopher Kassotis (2015-2020)

Dr. Tara Rafferty (2015-2016)

Dr. Nicholas Herkert (2018- present)

Dr. Catherine Wise (2020-present)

ACADEMIC COMMITTEES

PhD Committee Member, Rae Benedict, University of Maryland (2007)

PhD Committee Member, Jon Bearr, University of Maryland (2010)

PhD Committee Member, Nerissa Wu, Boston University School of Public Health (2010)

PhD Committee Member, Erin Yost, NC State University (2013)

PhD Committee Member, David Szabo, UNC Chapel, Hill (2012)

PhD Committee Member, Kylie Rock, NC State University (2019)

PhD Committee Member, Jessica Craig, Boston University School of Public Health (2020)

PhD Committee Member, Mary Ingle, University of Michigan School of Public Health (2020)

PhD Committee Member, Changlong Wu, Environmental Engineering, Duke University (2008)

PhD Committee Member, Michael Watts, Environmental Engineering, Duke University (2008)

PhD Committee Member, Shuyi Wang, Environmental Engineering, Duke University (2010)

PhD Committee Member, Amrika Deonarine, Environmental Engineering, Duke University (2011)

PhD Committee Member, Andreas Gondikas, Environmental Engineering, Duke University (2012)

PhD Committee Member, Ashley Parks, Environmental Engineering, Duke University(2013)

PhD Committee Member, Tong Zhang, Environmental Engineering, Duke University (2012)

PhD Committee Member, Ryan Holzem, Environmental Engineering, Duke University (2014)

PhD Committee Member, Judy Winglee, Environmental Engineering, Duke University (2017)

PhD Committee Member, Karoline Johnson, Environmental Engineering, Duke University (2018)

PhD Committee Member, Anna Lewis, Environmental Engineering, Duke University

PhD Committee Member, Jake Ulrich, Environmental Engineering, Duke University

PhD Committee Member, Deanna Howarth, NSOE, Duke University (2010)

PhD Committee Member, Carrie Flemming, NSOE, Duke University (2011)

PhD Committee Member, Lyndsey Van Tietem, NSOE, Duke University (2011)

PhD Committee Member, Bryan Clark, NSOE, Duke University (2011)

PhD Committee Member, Audrey Bone, NSOE, Duke University (2015)

PhD Committee Member, Gordon Getzinger, NSOE, Duke University (2016)

PhD Committee Member, Claudia Gonzalez, NSOE, Duke University (2017)

PhD Committee Member, Tony Luz, NSOE, Duke University (2017)

PhD Committee Member, Drew Day, NSOE, Duke University (2017)

PhD Committee Member, Xioxing Cui, NSOE, Duke University (2018)

PhD Committee Member, Christine Crute, NSOE, Duke University