Chadwick M. Thompson, Ph.D., M.B.A., ATS

SENIOR MANAGING SCIENTIST

MECHANISTIC AND COMPUTATIONAL BIOLOGY

CONTACT INFORMATION

ToxStrategies, A BlueRidge Life Sciences Company
190 T C Jester Blvd., Suite 420
Houston, TX 77007
Phone (281) 712-2062, x2002
Fax (832) 218-2756
cthompson@toxstrategies.com

PROFESSIONAL PROFILE

Dr. Chad M. Thompson holds a doctoral degree in Biomedical Sciences and specializes in mechanistic and quantitative aspects of risk assessment. He has written extensively on the mode of action (MOA) of high-profile compounds such as formaldehyde, hexavalent chromium, PFAS, and dioxin. He has also helped design, conduct, and analyze multimillion-dollar research projects with a focus on understanding the toxicity of environmental contaminants and application of such information to risk assessment. Dr. Thompson has extensive experience in dose-response modeling (including benchmark dose modeling), and he helped develop dose-response packages for the R statistical language (www.r-project.org).

Dr. Thompson specializes in the integration of dose-response, toxicological, and mechanistic information in human health risk assessment. As a former health scientist at the U.S. Environmental Protection Agency (EPA), he is a co-author of multiple IRIS chemical risk assessments, as well as several agency documents on risk assessment practices and policies, including the application of physiologically based pharmacokinetic (PBPK) models, toxicogenomic data, and lifestage susceptibility information in risk assessment.

Dr. Thompson is a coauthor of more than 100 publications in the peer-reviewed literature, many of which pertain directly to human health risk assessment. He is a former Risk Policy Fellow with the American Association for the Advancement of Science (AAAS). In June 2025, in recognition of his deep expertise and sound scientific judgment in the field of toxicology, Dr. Thompson was named a Fellow of the Academy of Toxicological Sciences (ATS).

EDUCATION AND DEGREES EARNED

2001 M.B.A., Virginia Commonwealth University, Richmond, VA

1999 Ph.D., Biomedical Sciences, University of Texas Health Science Center, Houston

1994 B.S., Psychology (*cum laude*), Old Dominion University, Norfolk, VA

PROFESSIONAL HONORS/AWARDS

2025 Fellow, Academy of Toxicological Sciences (ATS)

2013 Society of Toxicology Risk Assessment Specially Session (RASS) top 10 papers of 2012

2012 Society of Toxicology Risk Assessment Specially Session (RASS) top 10 papers of 2011

2010 Society of Toxicology Risk Assessment Specially Session (RASS) top 10 abstracts of the year award

2009 Level II Scientific and Technological Achievement Awards (STAA): Developing Guidelines for Physiologically Based Pharmacokinetic (PBPK) Modeling in Quantitative Risk Assessment

2009 Level III Scientific and Technological Achievement Awards (STAA): Outlining the Sensitivity of Inferences on Mode-of-Action and Cancer Risk Estimates using Clonal Growth Models

2009 Honorable Mention: A Groundbreaking Lifestage-Specific Approach to Health Risk Assessment of Environmental Exposures

2008 Superior Performance Award, cash award from U.S. EPA

2007 U.S. EPA Bronze Medal Award for preparing A Framework for Assessing Health Risk of Environmental Exposures to Children

2007 Superior Performance Award, cash award from U.S. EPA

2006 U.S. EPA Bronze Medal Award for preparing Approaches for the Application of Physiologically Based Pharmacokinetic Models and Supporting Data in Risk Assessment

2006 Superior Performance Award, cash award from U.S. EPA

2004 2004–2005 AAAS Science & Technology Policy Fellowship

2003 2003–2004 AAAS Science & Technology Policy Fellowship

2003 Ruth L. Kirschstein National Research Service Awards for Individual Postdoctoral Fellows (declined in order to accept the AAAS Science & Technology Policy Fellowship)

PROFESSIONAL ASSOCIATIONS

American Association for the Advancement of Science

Society of Toxicology, RASS Specialty Section, Mechanisms Specialty Section

SERVICE/PEER REVIEW

Biomedical and Environmental Sciences
Cell Biology & Toxicology
Chemical Research in Toxicology
Chemosphere
Critical Reviews in Toxicology
Drug & Chemical Toxicology
Environmental Research
Environmental Toxicology & Pharmacology
Expert Opinion on Drug Metabolism & Toxicology
Food & Chemical Toxicology
Human and Ecological Risk Assessment
International Journal of Medical Sciences
Journal of Toxicology and Environmental Health
Journal of Applied Toxicology
Regulatory Toxicology and Pharmacology
Toxicology and Applied Pharmacology
Toxicology Letters
Toxicological Sciences

SELECTED PROFESSIONAL EXPERIENCE

Toxicological Risk Assessment

Evaluated and interpreted toxicology data on a variety of environmental contaminants, including formaldehyde, methanol, chromium, nickel, dioxin and dioxin-like compounds (DLCs), brominated flame retardants, and various VOCs. Areas of expertise include hazard characterization, and dose-response analysis, pharmacokinetics, and developments of toxicity and safety values.

Conducted toxicological evaluations of chemical substances present or potentially present in vaccines, and also derived safe levels for excipients, detergents, surfactants, and other chemicals used in the production or inactivation of vaccine products.

Conducted comprehensive literature reviews on the toxicology of nickel compounds in support of registration under the Registration, Evaluation & Authorisation of Chemicals (REACH) initiative. Populated an International Uniform Chemical Information Database (IUCLID) for each substance. Evaluated key studies for reliability and relevance, synthesized large volumes of data, and generated integrative reports.

Developed, managed, analyzed, and published research into the mode of action (MOA) of intestinal tumors in mice exposed to hexavalent chromium [Cr(VI)] in drinking water. Analyzed in vivo and in vitro toxicological responses, including toxicogenomic and genotoxic endpoints.

Analyzed dose-response data pertinent to the development of safety values for oral exposure to Cr(VI) using benchmark dose and constrained nonlinear regression modeling techniques.

Communicated toxicological study findings on Cr(VI) to regulatory authorities across North America.

Collaborated with international researchers to develop methods for assessing the presence or absence of potential thresholds in the dose response of genotoxic endpoints both in vitro and in vivo.

Assisted in the development of an R language script (viz., drsmooth) for using smoothing splines to determine point-of-departure values in toxicological dose-response data sets.

Explored techniques for deriving relative potency estimates for DLCs using toxicogenomics and dose-response modeling methods.

Prepared comments on several external review drafts developed by regulatory agencies, including draft risk assessments, toxicological bioassays, and risk assessment practices and policy documents.

Coordinated and co-wrote portions of U.S. EPA IRIS chemical risk assessments, including reactive gases (e.g., formaldehyde) and systematically distributing compounds (methanol).

Evaluated Provisional Peer-Reviewed Toxicity Values (PPRTVs) for benzene and propene derivatives for U.S. EPA's Superfund program.

Served as a member of the U.S. EPA Pharmacokinetic Workgroup that provides expert consultation to EPA chemical managers regarding the application of PBPK models for ongoing assessments.

Regulatory Toxicology

Coordinated the completion and review of several risk assessment documents—including those related to the use of PBPK models for application in risk assessment, qualitative and quantitative approaches to considering children's susceptibility, and the exploration of the use of "omics" data in hazard characterization and dose-response in risk assessment. Co-author of:

- Approaches for the Application of Physiologically Based Pharmacokinetic Models and Supporting Data in Risk Assessment (http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=157668)
- A Framework for Assessing Health Risks of Environmental Exposures to Children (http://cfpub.epa. gov/ncea/cfm/recordisplay.cfm?deid=158363)
- An Approach to Using Toxicogenomics Data in EPA Risk Assessments (http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=213405)

Research & Development

Managed the development of Access databases containing physiological data for supporting PBPK model development for humans of various life stages and health conditions, as well as laboratory species.

Collaborated and published with national and international academic scientists on the collection, characterization, and analysis of lifestage-specific physiological data and their application in PBPK modeling and risk assessment.

Collaborated and, with scientists at Karolinska Institute and the VTT Technical Research Centre of Finland, published on mechanisms of formaldehyde toxicity—including potential respiratory effects relating to the dual function of alcohol dehydrogenase 3 in the oxidation of formaldehyde and reduction of the endogenous bronchodilator S-nitrosoglutathione (GSNO).

Project Management

Assisted in the oversight of a multimillion-dollar research project on the mode of action of hexavalent chromium. Responsibilities included direct interaction with contract laboratories regarding aspects of final study design, contract review, schedule oversight, managing and authorizing payments to contractors, providing scientific consultation and judgment on technical issues, and providing final approval on delivered work products.

Served as the Technical Project Officer on several contracts with outside vendors. Responsibilities included developing cost estimates for bid proposals, managing and approving payments to contractors, writing statements of work, reviewing and selecting bid contracts providing scientific consultation and judgment on technical issues related to contracts, and providing final approval on delivered contract products.

Litigation Support

Prepared (and rebutted) expert reports for formaldehyde litigation relating to alleged adverse health effects from formaldehyde and mobile home exposures.

Taught CLE course related to causation and Havner guidelines.

COMPUTER AND LANGUAGE SKILLS

Ingenuity Pathways Analysis (IPA), IUCLID 5, U.S. EPA's Benchmark Dose Modeling Software (BMDS); PROAST, BMDExpress, U.S. EPA's Regional Deposited Dose Ratio (RDDR) software v. 2.3, Multi-Path Model of Particle Deposition (MPPD) v. 2.1, Berkeley Madonna (ordinary differential equation solver); GraphPad Prism, @RISK Monte Carlo Software, Microsoft Office (including Access); Minitab Statistical Package, R statistical language.

MANUSCRIPTS

Buerger AN, Heintz MM, Haws LC, **Thompson CM**. 2026. Mode-of-action and human relevance assessment for diisononyl phthalate-induced liver tumors in rodents. J Appl Toxicol 46(12):4264-4287; doi: 10.1002/jat.70223.

Buerger AN, **Thompson CM**, Heintz MM, Maberti S, Palermo CM, Haws LC. 2026. Application of quantitative and qualitative uncertainty assessment risk management decision-making: A case study with diisononyl phthalate. Food Chem Toxicol 214(Aug):116110; doi: 10.1016/j.fct.2026116110. PMID: 42035978.

Heintz MM, **Thompson CM**, Wolf JC, Rogers JM, Haws LC. 2026. Hepatic transcriptomic responses in gravid and non-gravid rats exposed to HFPO-DA: Analyses to inform the role of maternal effects in neonatal toxicity. PLoS One 21(4):e0345643; doi: 10.1371/journal.pone.0345643. PMID: 41920860.

Patlewicz GY, Mihalchik AL, East A, Borghoff SJ, **Thompson CM**. 2026. Investigating the feasibility of deriving new environmentally relevant thresholds of Toxicological Concern (TTCs) from estimated chronic human equivalent benchmark dose ($eBMD_{HED}$) values. Comput Toxicol 38(June):100417; doi: 10.1016/j.comtox.2026.100417.

Thompson CM, Heintz MM, Rogers SI, Vincent MJ, Haws LC. 2026. Integration of mechanistic and repeat dose toxicity data in the derivation of an oral reference dose for HFPO-DA. Toxicol Sci 209(5):kfag045; doi: 10.1093/toxsci/kfag045. PMID: 41968070.

Thompson CM, Heintz MM, Cullen JM, Haws LC. 2026. Evaluation of chronic toxicity and carcinogenicity of HFPO-DA in mice. Regul Toxicol Pharmacol 165(Feb)106014; doi: 10.1016/j.yrtph.2025.106014. PMID: 41391658.

Borghoff SJ, Heintz MM, Rivera BN, Haws L, **Thompson C**. 2025. Evaluation of an anti-thyroid mode of action for thyroid follicular cell adenomas in female mice exposed to tertiary butyl alcohol. Regul Toxicol Pharmacol 163(Dec):105936; doi: 10.1016/j.yrtph.2025.105936. PMID: 40914479.

Brorby G, Franzen A, **Thompson C**, Wikoff D, Doepker C. 2025. Human health risk assessment of three smoke flavoring primary products. Food Chem Toxicol 202(Aug):115490; doi: 10.1016/j.fct.2025.115490. PMID: 40320068.

Heintz MM, Buerger AN, Haws LC, Cullen JM, East AW, **Thompson CM**. 2025. Comparison of phenotypic and transcriptomic profiles between HFPO-DA and prototypical PPAR*α*, PPAR*γ*, and cytotoxic agents in wild-type and *Ppara*-null mouse livers. Toxicol Sci 206(1):183-201; doi: 10.1093/toxsci/kfaf049. PMID: 40216583.

Proctor D, Jiang X, Reichert H, **Thompson C**. 2025. Why rat oral cavity tumors should not be the basis of quantitative cancer risk assessment for oral exposure to hexavalent chromium. Toxicol Sci 208(1):42-47; doi: 10.1093/toxsci/kfaf112. PMID: 40795394.

Heintz MM, Klaren WD, East AW, Haws LC, McGreal SR, Campbell RR, **Thompson CM**. 2024. Comparison of transcriptomic profiles between HFPO-DA and prototypical PPARα, PPARγ, and cytotoxic agents in wild-type and PPARα knockout mouse hepatocytes. Toxicol Sci 200(1):183–198; doi: 10.1093/toxsci/kfae045. PMID: 38574385.

Heintz MM, Klaren WD, East AW, Haws LC, McGreal SR, Campbell RR, **Thompson CM**. 2024. Comparison of transcriptomic profiles between HFPO-DA and prototypical PPARα, PPARγ, and cytotoxic agents in mouse, rat, and pooled human hepatocytes. Toxicol Sci 200(1):165–182; doi: 10.1093/toxsci/kfae044. PMID: 38574381.

Thompson CM, Dewhurst N, Moundous D, Borghoff SJ, Haws LC, Vasquez MZ. 2024. Assessment of the genotoxicity of tert-butyl alcohol in an in vivo thyroid comet assay. Environ Mol Mutagen 65(3–4):129–136; doi: 10.1002/em.22601.

Thompson CM, Heintz MM, Cullen JM, Haws LC. 2024. Letter to the Editor of Environmental Pollution: In regard to Wan et al. (2024) "GenX caused liver injury and potential hepatocellular carcinoma of mice via drinking water even at environmental concentration." Environ Pollut 355(Aug 15):124171; doi: 10.1016/j.envpol.2024.1241741.

Vincent MJ, Fitch S, Bylsma L, **Thompson C**, Rogers S, Britt J, Wikoff D. 2024. Assessment of associations between inhaled formaldehyde and lymphohematopoietic cancer through the integration of epidemiological and toxicological evidence with biological plausibility. Toxicol Sci 199(2):172–193; open access.

Heintz MM, Haws LC, Klaunig JE, Cullen JM, **Thompson CM**. 2023. Assessment of the mode of action underlying development of liver lesions in mice following oral exposure to HFPO-DA and relevance to humans. Toxicol Sci. 192(1):15-29; doi: 10.1093/toxsci/kfad004. PMID: 36629480; PMCID: PMC10025879.

Rogers JM, Heintz MM, **Thompson CM**, Haws LC. 2023. A putative adverse outcome network for neonatal mortality and lower birth weight in rodents: Applicability to per- and polyfluoroalkyl substances and relevance to human health. Birth Def Res 115:1011–1062.

Thompson CM, Brorby G, Keig-Shevlin Z, Smith R, Franzen A, Ulrich K, Blanchette AD, Doepker C. 2023. Assessment of the in vivo genotoxic potential of three smoke flavoring primary product mixtures. Environ Mol Mutagen 64(8–9):420–431; doi: 10.1002/em.22576.

Thompson CM, Heintz MM, Wolf J, Cheru R, Haws LC, Cullen JM. 2023. Assessment of mouse liver histopathology following exposure to HFPO-DA with emphasis on understanding mechanisms of hepatocellular death. Toxicol Pathol 51(1-2):4-14; doi: 10.1177/01926233231159078. PMID: 36987989.

Thompson CM, Kirman C, Harris MA. 2023. Derivation of oral cancer slope factors for hexavalent chromium informed by pharmacokinetic models and *in vivo* genotoxicity data. Regul Toxicol Pharmacol 145:105521; doi: 10.1016/j.yrtph.2023.105521.

Thompson CM, Proctor DM, Harris MA. 2023. Letter to “Chepelev et al. Establishing a quantitative framework for regulatory interpretation of genetic toxicity dose-response data: Margin of exposure case study of 48 compounds with both in vivo mutagenicity and carcinogenicity dose-response data.” Environ Mol Mutagen 64(4):259–260; doi: 10.1002/em.22537.

Chappell GA, Wolf JC, **Thompson CM**. 2022. Crypt and villus transcriptomic responses in mouse small intestine following oral exposure to hexavalent chromium. Toxicol Sci 186(1):43-57; doi: 10.1093/toxsci/kfab152. PMID: 34935971.

Heintz MM, Chappell GA, **Thompson CM**, Haws LC. 2022. Evaluation of transcriptomic responses in livers of mice exposed to the short-chain PFAS compound HFPO-DA. Front Toxicol 4:937168; doi: 10.3389/ftox.2022.937168.

Lea IA, Pham LL, Antonijevic T, **Thompson C**, Borghoff SJ. 2022. Assessment of the applicability of the threshold of toxicological concern for per- and polyfluoroalkyl substances. Regul Toxicol Pharmacol 133(Aug):105190; doi: 10.1016/j.yrtph.2022.105190. Corrigendum 171(Nov 2026):106172; doi: 10.1016/j.yrtph.2026.106172.

Chappell GA, Wikoff DS, **Thompson CM**. 2021. Assessment of mechanistic data for hexavalent chromium-induced rodent intestinal cancer using the key characteristics of carcinogens. Toxicol Sci 180(1):38-50; doi: 10.1093/toxsci/kfaa187.

Felter SP, Zhang X, **Thompson C**. 2021. Butylated hydroxyanisole: Carcinogenic food additive to be avoided or harmless antioxidant important to protect food supply? Regul Toxicol Pharmacol 121:104887.

Proctor DM, Bhat V, Suh M, Reichert H, Jiang X, **Thompson CM**. 2021. Inhalation cancer risk assessment for environmental exposure to hexavalent chromium: Comparison of margin-of-of exposure and linear extrapolation approaches. Regul Toxicol Pharmacol 124:104969; doi: 10.1016/j.yrtph.2021.104969.

Thompson CM, Aardema MJ, Heintz MM, MacGregor JT, Young RR. 2021. A review of mammalian *in vivo* genotoxicity of hexavalent chromium: Implications for oral carcinogenicity risk assessment. Crit Rev Toxicol 51(10):820-849; doi: 10.1080/10408444.2021.2000934.

Thompson CM, Bhat VS, Brorby GP, Haws LC. 2021. Development of updated RfD and RfC values for medium carbon range aromatic and aliphatic total petroleum hydrocarbon fractions. J Air Waste Manag Assoc 71(12):1555–1567; doi: 10.1080/10962247.2021.1974123.

Bhat VS, Cohen SM, Gordon EB, Wood CE, Cullen JM, Harris MA, Proctor DM, **Thompson CM**. 2020. An adverse outcome pathway for small intestinal tumors in mice involving chronic cytotoxicity and regenerative hyperplasia: A case study with hexavalent chromium, captan, and folpet. Crit Rev Toxicol (open access); doi: 10.1080/10408444.2020.1823934.

Chappell GA, **Thompson CM**, Wolf JC, Cullen JM, Klaunig JE, Haws LC. 2020. Assessment of the mode of action underlying the effects of GenX in mouse liver and implications for assessing human health risks. Toxicol Pathol 48(3):494–508; doi: 10.1177/0192623320905803. PMID: 32138627.

Gentry R, **Thompson CM**, Franzen A, Salley J, Albertini R, Lu K, Greene T. 2020. Using mechanistic information to support evidence integration and synthesis: A case study with inhaled formaldehyde and leukemia. Crit Rev Toxicol 50(10):885–918; doi: 10.1080/10408444.2020.1854678.

Pham LL, Borghoff SJ, **Thompson CM**. 2020. Comparison of threshold of toxicological concern (TTC) values to oral reference dose (RfD) values. Regul Toxicol Pharmacol 113:104651 (open access); doi: 10.1016/j.yrtph.2020.104651.

Thompson CM, Gentry R, Fitch S, Lu K, Clewell HJ. 2020. An updated mode of action and human relevance framework evaluation for formaldehyde-related nasal tumors. Crit Rev Toxicol 50(10):919–952; doi: 10.1080/10408444.2020.1854679.

Thompson CM, Donahue DA, Hobbs C, Costecalde Y, Franzen A, Suh M, Proctor DM, Harris MA. 2020. Exposure to environmentally-relevant concentrations of hexavalent chromium does not induce ovarian toxicity in mice. Regul Toxicol Pharmacol 116:104729; doi: 10.1016/j.yrtph.2020.104729.

Andersen ME, Gentry PR, Swenberg JA, Mundt KA, White KW, **Thompson C**, Bus J, Sherman JH, et al. 2019. Considerations for refining the risk assessment process for formaldehyde: Results from an interdisciplinary workshop. Regul Toxicol Pharmacol 106:210–223.

Chappell G, Rager J, Wolf J, Babic M, Leblanc, Ring C, Harris MA, **Thompson CM.** 2019. Comparison of gene expression responses in the small intestine of mice following exposure to three carcinogens using the S1500+ gene set informs a potential common adverse outcome pathway. Toxicol Pathol 47(7):851–864; doi: 10.1177/0192623319873882.

Clewell RA, **Thompson CM**, Clewell HJ. 2019. Dose-dependence of chemical carcinogenicity: Biological mechanisms for thresholds and implications for risk assessment. Chem Biol Interact 301:112–127.

Klaren WD, Ring C, Harris MA, Thompson CM, Borghoff S, Sipes NS, Hsieh J-H, Auerbach SS, Rager JE. 2019. Identifying attributes that influence in vitro-to-in vivo concordance by comparing in vitro Tox21 bioactivity versus in

vivo DrugMatrix transcriptomic responses across 130 chemicals. Toxicol Sci 167(1):157-171; doi: 10.1093/toxsci/kfy220.

Rager JE, Suh M, Chappell G, **Thompson CM**, Proctor DM. 2019. Review of transcriptomic responses to hexavalent chromium exposure in lung cells supports a role of epigenetic mediators in carcinogenesis. Toxicol Lett 305:40–50.

Thompson CM, Fitch SE, Ring C, Rish W, Cullen JM, Haws LC. 2019. Development of an oral reference dose for the perfluorinated compound GenX. J Appl Toxicol 39:1267–1282; doi: 10.1002/jat.3812.

Moffat I, Martinova N, Seidel C, **Thompson CM.** 2018. Hexavalent chromium in drinking water. J AWWA 110:5.

Proctor DM, Suh M, Chappell G, Borghoff SJ, **Thompson CM**, Wiench K, Finch L, Ellis-Hutchings R. 2018. An adverse outcome pathway (AOP) for forestomach tumors induced by non-genotoxic initiating events. Regul Toxicol Pharmacol 96:30–40; doi: 10.1016/j.yrtph.2018.04.016.

Suh M, Proctor DM, Chappell G, Rager JE, **Thompson CM**, Borghoff S, Finch L, Ellis-Hutchings R, Wiench K. 2018. A review of the genotoxic, mutagenic, and carcinogenic potentials of several lower acrylates. Toxicology 402–403:50–67; doi: 10.1016/j.tox.2018.04.006.

Thompson CM, Kirman CR, Hays SM, Suh M, Harvey SE, Proctor DM, Rager JE, Haws LC, Harris MA. 2018. Integration of mechanistic and pharmacokinetic information to derive oral reference dose and margin-of-exposure values for hexavalent chromium. J Appl Toxicol 38:351–365; doi: 10.1002/jat.3545.

Thompson CT, Suh M, Chappell G, Borghoff S, Ellis-Hutchings R, Wiench K, Finch L, Proctor DM. 2018. Assessment of the mode of action underlying development of forestomach tumors in rodents following oral exposure to ethyl acrylate and relevance to humans. Regul Toxicol Pharmacol 96:178–189; doi: 10.1016/j.yrtph.2018.05.006.

Wikoff DS, **Thompson C**, Rager J, Chappell G, Fitch S, Doepker C. 2018. Benefit-risk analysis for foods (BRAFO): Evaluation of exposure to dietary nitrates. Food Chem Toxicol 120(Oct):709-723; doi: 10.1016/j.fct.2018.08.031.

Rager JE, Auerbach SS, Chappell GA, Martin E, **Thompson CM**, Fry RC. 2017. Benchmark dose modeling estimates of the concentrations of inorganic arsenic that induce changes to the neonatal transcriptome, proteome, and epigenome in a pregnancy cohort. Chem Res Toxicol 30(10):1911–1920; doi: 10.1021/acs.chemrestox.7b00221.

Rager JE, Ring CL, Fry RC, Suh M, Proctor DM, Haws LC, Harris MA, **Thompson CM**. 2017. High-throughput screening data interpretation in the context of in vivo transcriptomic responses to oral Cr(VI) exposure. Toxicol Sci 158(1):199-212; doi: 10.1093/toxsci/kfx085.

Thompson CM, Suh M, Proctor DM, Haws LC, Harris MA. 2017. Ten factors for considering the mode of action of Cr(VI)-induced gastrointestinal tumors in rodents. Mut Res/Genetic Toxicol Environ Mutagen 823:45–57.

Thompson CM, Wolf, JC, McCoy A, Suh M, Proctor DM, Kirman CR, Haws LC, Harris MA. 2017. Comparison of toxicity and recovery in the duodenum of B6C3F1 mice following treatment with intestinal carcinogens captan, folpet, and hexavalent chromium. Toxicol Pathol 45(8):1091–1101; doi: 10.1177/019262331yy4324.

Thompson CM, Young RR, Dinesdurage H, Suh M, Harris MA, Rohr AC, Proctor DM. 2017. Assessment of the mutagenic potential of hexavalent chromium in the duodenum of Big Blue® rats. Toxicol Appl Pharmacol 330(1):48-52.

Cullen JM, Ward JM, Thompson CM. 2016. Reevaluation and classification of duodenal lesions in B6C3F1 mice and F344 rats from 4 studies of hexavalent chromium in drinking water. Toxicol Path. 44(2):279-89.

Suh M, **Thompson CM**, Brorby GP, Mittal L, Proctor DM. 2016. Inhalation cancer risk assessment of cobalt metal. Regul Toxicol Pharmacol 79:74–82.

Thompson CM, Bichteler A, Rager JE, Suh M, Proctor DM, Haws LC, Harris MA. 2016. Comparison of in vivo genotoxic and carcinogenic potency to augment mode of action analysis: Case study with hexavalent chromium. Mutat Res 800:28-34.

Thompson CM, Rager JE, Suh M, Ring CL, Proctor DM, Haws LC, Fry RC, Harris MA. 2016. Transcriptomic responses in the oral cavity of F344 rats and B6C3F1 mice: Implications for risk assessment. Environ Mol Mutagen 57:706–716.

Thompson CM, Seiter J, Chappell MA, Tappero RV, Proctor DM, Suh M, Wolf JC, Haws LC, et al. 2015. Synchrotron-based imaging of chromium and γ -H2AX immunostaining in the duodenum following repeated exposure to Cr(VI) in drinking water. Toxicol Sci 143(1):16–25.

Thompson CM, Suh M, Mittal L, Wikoff D, Welsh B, Proctor DM. 2016. Development of linear and threshold no significant risk levels for inhalation exposure to titanium dioxide using systematic review and mode of action considerations. Regul Toxicol Pharmacol 80:60–70.

Thompson CM, Wolf JC, Elbekai RH, Paranjpe MG, Seiter JM, Chappell MA, Tappero RV, Suh M, et al. 2015. Duodenal crypt health following exposure to Cr(VI): Micronucleus scoring, γ-H2AX immunostaining, and synchrotron x-ray fluorescence microscopy. Mutat Res 789–790:61–66.

Thompson CM, Young RR, Suh M, Dinesdurage HR, Elbekai RH, Harris MA, Rohr AC, Proctor DM. 2015. Assessment of the mutagenic potential of Cr(VI) in the oral mucosa of Big Blue® transgenic F344 rats. Environ Mol Mutagen 56:621–628.

Wikoff D, **Thompson C**, Perry C, White M, Borghoff S, Fitzgerald L, Haws LC. 2015. Development of toxicity values and exposure estimates for tetrabromobisphenol A (TBBPA): Application in a margin of exposure assessment. J Appl Toxicol 35(11):1292–1308.

Young RR, **Thompson CM,** Dinesdurage HR, Elbekai RH, Suh M, Rohr, AC, Proctor DM. 2015. A robust method for assessing chemically induced mutagenic effects in the oral cavity of transgenic Big Blue® rats. Environ Mol Mutagen 56:629–636.

Johnson GE, Soeteman-Hernandez LG, Gollapudi BB, Bodger OG, Dearfield KL, Heflich RH, Hixon JG..., **Thompson CM**, et al. 2014. Derivation of point of departure (PoD) estimates in genetic toxicology studies and their potential applications in risk assessment. Environ Molec Mutagen 55:609–623.

Proctor DM, Suh M, Campleman S, **Thompson CM**. 2014. Assessment of the mode of action for hexavalent chromium-induced lung cancer following inhalation exposures. Toxicology 325:160–179.

Suh M, **Thompson CM,** Kirman C, Carakostas M, Haws LC, Harris M, Proctor D, Abraham L, Hixon JG. 2014. High concentrations of hexavalent chromium in drinking water alter iron homeostasis in F344 rats and B6C3F1 mice. Food Chem Toxicol 65:381–388.

Thompson CM, Kirman CR, Proctor DM, Haws LC, Suh M, Hays SM, Hixon JG, Harris MA. 2014. A chronic oral reference dose for hexavalent chromium-induced intestinal cancer. J Appl Toxicol 34:525–536.

Euling SY, **Thompson CM**, Chiu WA, Benson R. 2013. An approach for integrating toxicogenomic data in risk assessment: The dibutyl phthalate case study. Toxicol Appl Pharmacol 271:324–335.

Kirman CR, Aylward LL, Suh M, Harris MA, **Thompson CM**, Haws LC, Proctor DM, Lin SS, Parker W, Hays SM. 2013. Physiologically based pharmacokinetic model for humans orally exposed to chromium. Chem Biol Interact 204:13–27.

O'Brien T, Ding H, Suh M, **Thompson CM**, Parsons BL, Harris MA, Winkelman WA, Wolf JC, et al. 2013. Assessment of K-Ras mutant frequency and micronucleus incidence in the mouse duodenum following 90-days of exposure to Cr(VI) in drinking water. Mutat Res 745:15–21.

Rowlands JC, Budinsky R, Gollapudi B, Black MB, Wofinger RD, Cukovic D, Dombowski A, **Thompson CM**, et al. 2013. A genomics-based analysis of relative potencies of dioxin-like compounds in primary rat hepatocytes. Toxicol Sci 136(2):595–604.

Thompson CM, Gaylor DW, Tachovsky JA, Perry C, Carakostas MC, Haws LC. 2013. Development of a chronic noncancer oral reference dose and drinking water screening level for sulfolane using benchmark dose modeling. J Appl Toxicol 33(12):1395–1406.

Thompson CM, Proctor DM, Suh M, Haws LC, Kirman CR, Harris MA. 2013. Assessment of the mode of action underlying development of rodent small intestinal tumors following oral exposure to hexavalent chromium and relevance to humans. Crit Rev Toxicol 43(3):244–274.

Wilson VS, Keshava N, Hester S, Segal D, Chiu W, **Thompson CM**, Euling SY. 2013. Utilizing toxicogenomic data to understand chemical mechanism of action in risk assessment. Toxicol Appl Pharmacol 271:299–308.

Kirman CR, Hays SM, Aylward LL, Suh M, Harris MA, **Thompson CM,** Haws LC, Proctor DM. 2012. Physiologically based pharmacokinetic model for rats and mice orally exposed to chromium. Chem Biol Interact 200(1):45–64.

Kopec AK, Kim S, Forgacs AL, Zacharewski TR, Proctor DM, Harris MA, Haws LC, **Thompson CM.** 2012. Genome-wide gene expression effects in B6C3F1 mouse intestinal epithelia following 7 and 90 days of exposure to hexavalent chromium in drinking water. Toxicol Appl Pharmacol 259(1):1326.

Kopec AK, **Thompson CM**, Kim S, Forgacs AL, Zacharewski TR. 2012. Comparative toxicogenomic analysis of oral Cr(VI) exposure effects in rat and mouse small intestinal epithelium. Toxicol Appl Pharmacol 262(2):124–38.

Proctor DM, Suh M, Aylward LL, Kirman CR, Harris MA, **Thompson CM**, Gürleyük H, Gerads R, Haws LC, Hays SM. 2012. Hexavalent chromium reduction kinetics in rodent stomach contents. Chemosphere 89(5):487–93.

Thompson CM, Fedorov Y, Brown DD, Suh M, Proctor DM, Kuriakose L, Haws LC, Harris MA. 2012. Assessment of Cr(VI)-induced cytotoxicity and genotoxicity using high content analysis. PLoS ONE 7(8):e42720.

Thompson CM, Hixon JG, Proctor DM, Haws LC, Suh M, Urban JD, Harris MA. 2012. Assessment of genotoxic potential of Cr(VI) in the mouse duodenum: An in silico comparison with mutagenic and nonmutagenic carcinogens across tissues. Regul Toxicol Pharmacol 64(1):68–76.

Thompson CM, Proctor DM, Suh M, Haws LC, Hebert CD, Mann JF, Shertzer HG, Hixon, et al. 2012. Comparison of the effects of hexavalent chromium in the alimentary canal of F344 rats and B6C3F1 mice following exposure in drinking water: Implications for carcinogenic modes of action. Toxicol Sci 125(1):79–90.

Proctor DM, **Thompson CM**, Suh M, Harris MA. 2011. A response to “A quantitative assessment of the carcinogenicity of hexavalent chromium by the oral route and its relevance to human exposure.” Environ Res 111(3):468–470.

Thompson CM, Haws LC, Harris MA, Gatto NM, Proctor DM. 2011. Application of the U.S. EPA mode of action framework for purposes of guiding future research: A case study involving the oral carcinogenicity of hexavalent chromium. Toxicol Sci 119(1):20–40.

Thompson CM, Proctor DM, Haws LC, Hebert CD, Grimes SD, Shertzer HG, Kopec AK, Hixon JG, et al. 2011. Investigation of the mode of action underlying the tumorigenic response induced in B6C3F1 mice exposed orally to hexavalent chromium. Toxicol Sci 123(1):58–70.

Thompson CM, Ceder R, Grafström RC. 2010. Formaldehyde dehydrogenase: Beyond phase I metabolism. Toxicol Lett 193(1):1–3.

Thompson CM, Grafström RC. 2010. Considerations for the implausibility of leukemia induction by formaldehyde. Toxicol Sci 120(1):230–232.

Thompson CM, Grafstrom RC. 2009. Commentary: Mechanistic considerations for associations between formaldehyde exposure and nasopharyngeal carcinoma. Environ Health 8:53.

Thompson CM, Johns DO, Sonawane S, Barton HA, Hattis D, Tardif R, Krishnan K. 2009. Database for physiologically based pharmacokinetic (PBPK) modeling: Physiological parameters for healthy and health-impaired elderly. J Toxicol Environ Health B 12:1–24.

Thompson CM, Sonawane B, Grafström RC. 2009. The ontogeny, distribution and regulation of alcohol dehydrogenase 3: Implications for pulmonary physiology. Drug Metab Dispos 37(8):1565–1571.

DeWoskin RS, **Thompson CM.** 2008. Renal clearance parameters for PBPK model analysis of early lifestage differences in the disposition of environmental toxicants. Regul Toxicol Pharmacol 51:66–86.

Makris SL, **Thompson CM**, Euling SY, Selevan SG, Sonawane B. 2008. A lifestage-specific approach to hazard and dose-response characterization for children's health risk assessment. Birth Defects Res B 83:530–546.

Subramaniam RP, Chen C, Crump KS, Devoney D, Fox JF, Portier CJ, Schlosser PM, **Thompson CM**, White, P. 2008. Uncertainties in biologically-based modeling of formaldehyde-induced respiratory cancer risk: Identification of key issues. Risk Anal 28:907–923.

Thompson CM, Sonawane B, Barton HA, DeWoskin RS, Schlosser P, Lipscomb JC, Chiu W, Krishnan K. 2008. Approaches for applications of physiologically based pharmacokinetic models in risk assessment. J Toxicol Environ Health B 11:519–547.

Thompson CM, Subramaniam RP, Grafström RC. 2008. Mechanistic and dose considerations for supporting adverse pulmonary physiology in response to formaldehyde. Toxicol Appl Pharmacol 233:355–359.

Chiu W, Barton HA, DeWoskin RS, Schlosser P, **Thompson CM**, Sonawane B, Lipscomb JC, Krishnan K. 2007. Evaluation of physiologically based pharmacokinetic models for use in risk assessment. J Appl Toxicol 27(3):218–237.

Thompson CM, Grafström RC. 2007. Mechanistic considerations for formaldehyde-induced bronchoconstriction involving S-nitrosoglutathione reductase. J Toxicol Environ Health A 71:244–248.

Barone S Jr, Brown RC, Euling S, Cohen Hubal E, Kimmel CA, Makris S, Moya J,..., **Thompson CM.** 2006. Visión general de la evaluación del rieso en salud infantil empleando un enfoque por etapas de desarrollo. Acta Toxicol Argent 14(Sup):7–10.

Thompson CM, Wojno H, Greiner E, May EL, Rice KC, Selley DE. 2004. Activation of G-proteins by morphine and codeine congeners: Insights to the relevance of O- and N-demethylated metabolites at μ -and δ -opioid receptors. J Pharmacol Exper Therapeut 308(2):547–554.

Strobel HW, **Thompson CM**, Antonovic L. 2001. Cytochromes P450 in brain: Function and significance. Current Drug Metab 2(2):199–214.

Thompson CM, Capdevila JH, Strobel HW. 2000. Recombinant P450 2D18 metabolism of dopamine and arachidonic acid. J Pharmacol Exper Therapeut 294(3):1120–1130.

Gerhardt B, Kordas TJ, **Thompson CM**, Patel P, Vida TV. 1998. The vesicle transport protein, Vps33p, is an ATP binding protein that localizes to the cytosol in an energy dependent manner. J Biol Chem 273(25):15818–15829.

Thompson CM, Kawashima H, Strobel HW. 1998. Isolation of partially purified P450 2D18 and characterization of activity towards the tricyclic antidepressants imipramine and desipramine. Arch Biochem Biophys 359(1):115–121.

Kawashima H, Kusunose E, **Thompson CM**, Strobel HW. 1997. Protein expression, characterization, and regulation of CYP4F4 and CYP4F5 cloned from rat brain. Arch Biochem Biophys 347(1):148–154.

Thompson CM, Bernhard AE, Strobel HW. 1997. Barbiturate-induced expression of neuronal nitric oxide synthase in the rat cerebellum. Brain Res 754:142–146.

Huber KM, Mauk, MD, **Thompson CM**, Kelly PT. 1995. A critical period of protein kinase activity after tetanic stimulation is required for the induction of long-term potentiation. Learning & Memory 2:81–100

BOOK CHAPTERS

Johns DO, Owens EO, **Thompson CM**,Sonawane B, Hattis D, Krishnan K. 2010. Chapter 5: Physiological parameters and databases for PBPK modeling. In: Quantitative Modeling in Toxicology. Krishnan K and Andersen M(eds). pp. 107.

Thompson C, Nong A, Sonawane B, Krishnan K. 1998. Considerations for applying physiologically based pharmacokinetic models in risk assessment. In: Toxicokinetics and Risk Assessment. Lipscomb JL, Ohanian EV (eds). Informa Healthcare USA Inc, NY, pp. 123–139.

DeWoskin R, Lipscomb J, **Thompson C**, Chiu WA, Schlosser P, Smallwood C, Swartout J, Teuschler L, Marcus A. 2006. Pharmacokinetic/physiologically based pharmacokinetic models in Integrated Risk Information System assessments. In: Toxicokinetics and Risk Assessment. Lipscomb JL, Ohanian EV (eds). Informa Healthcare USA Inc, NY, pp. 301–348.

ABSTRACTS, PRESENTATIONS, POSTERS

Doepker C, Franzen A, Brorby G*, Wikoff D, **Thompson C**. From alerts to evidence: Advancing the use of *in vivo* genotoxicity dose-response data for complex mixtures. Poster/Abstract PA3, International Conference on the Science of Botanicals (ICSB), Oxford, MS, April 2026. *(*poster only*)

Buerger AN, Heintz MM, Haws LC, Nyambego H, Palermo CM, **Thompson CM**. Mode of action and human relevance assessment for diisononyl phthalate (DINP)-induced liver tumors in rodents. Abstract 3324, Society of Toxicology 65th Annual Meeting, San Diego, CA, March 2026.

Patlewicz G, Mihalchik A, **Thompson CM**, East A, Borghoff S. Investigating the feasibility of deriving a new environmentally relevant Thresholds of Toxicological Concern (TTCs) from estimated human equivalent benchmark dose ($eBMD_{HED}$) values. Abstract 4013, Society of Toxicology 65th Annual Meeting, San Diego, CA, March 2026.

Proctor DM, Verwiel AH, Covington TR, **Thompson CM**. Acute (24-hour) nickel inhalation reference concentration for use in air toxics risk assessment. Abstract 3997, Society of Toxicology 65th Annual Meeting, San Diego, CA, March 2026.

Heintz MM, Buerger AN, Haws LC, East AW, Cullen JM, **Thompson CM**. Comparison of phenotypic and transcriptomic profiles between HFPO-DA and prototypical PPARα, PPARγ, and cytotoxic agents in wild-type and PPARα knockout mice. Abstract 3972, Society of Toxicology 64th Annual Meeting, Orlando, FL, March 2025.

Proctor D, **Thompson C**. Why oral cavity tumors should not be the basis of the hexavalent chromium oral cancer slope factor-weight of evidence review. Abstract 3136, Society of Toxicology 64th Annual Meeting, Orlando, FL, March 2025.

Thompson CM, Heintz MM, Cullen JM, Haws LC. Evaluation of the chronic toxicity and carcinogenicity of ammonium 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)-propanoate (HFPO-DA) in mice. Abstract 4700, Society of Toxicology 64th Annual Meeting, Orlando, FL, March 2025.

Reátegui-Zirena EG, Lange SS, Jenkins A, Heintz MM, Franke K, Perry CS, **Thompson C**, et al. Acute health-based screening level derivation for cyanotoxins (microcystin, cylindrospermopsin and anatoxins). Abstract 7.05P-Th-197, Society of Environmental Toxicology and Chemistry, 45th Annual Meeting, Fort Worth, TX, October 2024.

Heintz M, Klaren W, East A, Haws L, **Thompson C**. Delayed transcriptomic responses in PPARa knockout mouse hepatocytes compared to wild-type hepatocytes exposed to HFPO-DA or PPARa agonist GW7647: Support for a PPARa-dependent mode of action for HFPO-DA in mouse hepatocytes. Abstract 4100, Society of Toxicology 63rd Annual Meeting, Salt Lake City, UT, March 2024.

Thompson CM, Heintz MM, Rogers SI, Fitch SE, Rivera BN, Klaren WD, Vincent MJ, Wikoff DS, Haws LC. Evidence identification and appraisal supporting development of an updated toxicity value for HFPO-DA. Abstract 3654, Society of Toxicology 63rd Annual Meeting, Salt Lake City, UT, March 2024.

Vincent M, Fitch S, Bylsma L, **Thompson C**, Rogers S, Britt J, Wikoff D. Integration of toxicological and epidemiological information to evaluate biological plausibility and causality of associations between inhaled formaldehyde (FA) and lymphohematopoietic (LHP) cancers. Abstract 5157, Society of Toxicology 63rd Annual Meeting, Salt Lake City, UT, March 2024.

Choksi NY, Fitch S, Harris MA, **Thompson CM**, Wikoff DS. Reliability assessment of guideline-based studies using systematic review critical appraisal tools. Poster presented at Society of Toxicology 62nd Annual Meeting, Nashville, TN, March 2023.

Franzen AC, **Thompson CM**, Brorby GP, Wikoff DS, Ilkbahar Z, Doepker C. Risk assessment of three smoke flavoring primary products currently under re-evaluation by EFSA. Poster presented at Society of Toxicology 62nd Annual Meeting, Nashville, TN, March 2023.

Haws LC, Heintz MM, **Thompson CM**. Updated mode of action information informing the risk assessment of HFPO-DA (GenX). Poster presented at Society of Toxicology 62nd Annual Meeting, Nashville, TN, March 2023.

Heintz MM, Haws LC, **Thompson CM**. Assessment of the mode of action underlying development of liver lesions in mice following oral exposure to HFPO-DA (GenX) and relevance to humans. Poster presented at Society of Toxicology 62nd Annual Meeting, Nashville, TN, March 2023.

Klaren WD, Heintz MM, East AW, **Thompson CM**. *In vitro* transcriptomic analyses informing the mode of action of HFPO-DA (GenX) in the liver. Poster presented at Society of Toxicology 62nd Annual Meeting, Nashville, TN, March 2023.

Thompson CM, Wikoff DS, Proctor DM, Harris MA. An evaluation of risk assessments on hexavalent chromium [Cr(VI)]: The past, present, and future of mode of action research. Poster presented at Society of Toxicology 62nd Annual Meeting, Nashville, TN, March 2023.

Thompson CM, Chappell GA, Mittal L, Gorman B, Proctor DM, Haws LC, Harris MA. Use of targeted mode-of-action research to inform human health risk assessment of hexavalent chromium. Poster presented at Society of Toxicology 61st Annual Meeting, San Diego, CA, March 2022.

Rogers JM, Heintz MM, **Thompson CM**, Haws LC. Development of a putative adverse outcome pathway for neonatal mortality in rodents: Implications for human health risk assessments of PFAS. Poster presented at Society of Toxicology 61st Annual Meeting, San Diego, CA, March 2022.

Chappell G, Wolf JC, Harris MA, **Thompson CM**. Variation in transcriptomic responses in the crypt and villus of mouse small intestine following oral exposure to hexavalent chromium. Poster presented at Society of Toxicology 61st Annual Meeting, San Diego, CA, March 2022.

Heintz MM, Chappell GA, **Thompson CM**, Wolf JC, Rogers JM, Haws LC. HFPO-DA (GenX) transcriptomic responses in pregnant and non-pregnant rat livers: Analyses to inform the role of maternal effects on neonatal toxicity. Poster presented at Society of Toxicology 61st Annual Meeting, San Diego, CA, March 2022.

Thompson CM, Ring C, Pham L, Chappell GA, Haws LC. Assessment of the relevance of toxicological findings in the development of an oral reference dose for GenX. Poster for Society of Toxicology, 59th Annual Meeting, Virtual, March 2020, https://eventpilotadmin.com/web/page.php?page=Session&project=SOT20&id=P2764.

Wikoff D, Franzen A, Chappell G, Harris M, **Thompson C**. Systematic characterization of hexavalent chromium and potential female reproductive outcomes: Application of US EPA critical appraisal tools and stepwise inclusion of mechanistic data. Poster for Society of Toxicology, 59th Annual Meeting, Virtual, March 2020, https://eventpilotadmin.com/web/page.php?page=Session&project=SOT20&id=P3209.

Thompson CM. The useful chemistry of perfluorinated compounds: Managing safety. The sticky subject of non-stick: Regulatory science challenges of per- and poly-fluorinated compounds (PFAS). Texas A&M University Interdisciplinary Faculty of Toxicology Training Program, 2019 Annual Regulatory Science Symposium. August 20, 2019.

Chappell GA, **Thompson CM**, Wolf J, Cullen J, Haws LC. Transcriptomic responses in livers of GenX-treated mice demonstrate up-regulation of PPAR signaling and related pathways. Environmental Mutagenesis and Genomics Society, Washington, DC, September 2019.

Thompson C, Chappell G, Cullen J, Wolf JC, Haws L. Development of an oral reference dose for GenX using the latest toxicological and risk assessment methodologies: Environmental risk assessment of per- and polyfluoroalkyl substances (PFAS). SETAC North America Focused Topic Meeting, Durham, NC, August 2019.

Thompson CM, Gentry R. An updated mode-of-action analysis for formaldehyde-induced nasal tumors in rodents: A case study using the IPCS MOA and human relevance frameworks. Poster at Society of Toxicology 58th Annual Meeting, Baltimore, MD, March 2019.

Gentry R, Greene T, Granzen A, **Thompson CM**. Formaldehyde and leukemia: A case study using the IPCS MOA and human relevance frameworks. Poster at Society of Toxicology 58th Annual Meeting, Baltimore, MD, March 2019.

Chappell GA, Rager JE, Wolf JC, Babic M, LeBlanc KJ, Ring CL, Harris MA, **Thompson C**. Similarities in the transcriptomic signatures in the duodenum of mice exposed to hexavalent chromium, captan, or folpet inform the mechanisms of chemical-induced mouse small intestine cancer. Presentation at Society of Toxicology 58th Annual Meeting, Baltimore, MD, March 2019.

Thompson CM, Gentry R. An updated mode-of-action analysis for formaldehyde-induced nasal tumors in rodents: A case study using the IPCS MOA and human relevance frameworks. Poster at Society of Toxicology 58th Annual Meeting, Baltimore, MD, March 2019.

Chappell GA, Rager JE, Wolf JC, Babic M, LeBlanc KJ, Ring CL, Harris MA, **Thompson C**. Similarities in the transcriptomic signatures in the duodenum of mice exposed to hexavalent chromium, captan, or folpet inform the mechanisms of chemical-induced mouse small intestine cancer. Presentation at Society of Toxicology 58th Annual Meeting, Baltimore, MD, March 2019.

Ring CL, Urban J, Wikoff D, **Thompson C**, Budinsky RA, Haws LC. Application of systematic review and quantitative evidence integration methods to support risk assessment: Characterization of the dose-response relationship between exposure to dioxin-like compounds (DLC) and sperm count. Poster at Society of Toxicology 58th Annual Meeting, Baltimore, MD, March 2019.

Thompson CM, Wolf JC, Suh M, Proctor DM, Haws LC, Harris MA. Toxicity and recovery in the duodenum of B6C3F1mice following treatment with intestinal carcinogens; captan, folpet, and hexavalent chromium: Evidence for an adverse outcome pathway. Society of Toxicology 57th Annual Meeting, San Antonio, TX, March 2018.

Thompson CM, Suh M, Proctor DM, Harris MA. Ten factors for considering the mode of action of Cr(VI)-induced intestinal tumors in rodents. Society of Toxicology 57th Annual Meeting, San Antonio, TX, March 2018.

Doepker D, Tyndall K, Lane R, Wikoff D, **Thompson C**, Harvey S, Schmitt D. A proposed ADI for nitrate. Poster presented at Society of Toxicology 56th Annual Meeting, Baltimore, MD, March 2017.

Thompson C, Rager J, Suh M, Proctor D, Haws L, Harris M. Mechanistic support for nonlinear risk assessment of rat oral cavity tumors induced by exposure to Cr(VI) in drinking water. Poster presented at Society of Toxicology 56th Annual Meeting, Baltimore, MD, March 2017.

Kirman CR, Proctor D, Suh M, Haws L, Harris M, **Thompson C**, Hays S. Using physiologically-based pharmacokinetic modeling to address potentially sensitive subpopulations exposure to hexavalent chromium. Poster presented at Society of Toxicology 56th Annual Meeting, Baltimore, MD, March 2017.

Rager JE, **Thompson CM**, Ring C, Fry RC, Harris MA. Integration of transcriptomics and high-throughput screening predictions with robust *in vivo* data to inform hexavalent chromium mode of action. Poster presented at Society of Toxicology 56th Annual Meeting, Baltimore, MD, March 2017.

Thompson C, Kirman C, Suh M, Proctor D, Haws L, Harris M, Hays S. Risk assessment of oral exposure to Cr(VI): Integration of mode of action, pharmacokinetics, and dose-response modeling. Poster presented at Society of Toxicology 56th Annual Meeting, Baltimore, MD, March 2017.

Rager J, **Thompson C,** Auerbach S, Fry R. Integrating genomic and epigenomic data into risk assessment applications through dose response modeling: Case study with prenatal arsenic exposure. Environmental Mutagenesis and Genomics Society, Kansas City, MO, September 25, 2016.

Thompson CM. Non-mutagenic MOA for Cr(VI) involving intestinal cytotoxicity and regenerative hyperplasia. Platform presentation in the "The Cancer Risk Assessment for Ingested Hexavalent Chromium: Challenges and Controversies" session. Presented at Society of Toxicology 55th Annual Meeting, New Orleans, LA, March 13-17, 2016.

Cullen JM, Ward JM, **Thompson CM**. Re-evaluation and classification of duodenal lesions in B6C3F1 mice and F344 rats from four studies of hexavalent chromium in drinking water. Presented at Society of Toxicology 55th Annual Meeting, New Orleans, LA, March 13-17, 2016.

Thompson CM, Suh M, Proctor DM, Rager JE, Haws LC, Harris MA. Assessment of the in vivo genotoxicity of CrVI in target organs identified in a two-year cancer bioassay. Presented at Society of Toxicology 55th Annual Meeting, New Orleans, LA, March 13-17, 2016.

Brorby GP, Suh M, **Thompson CM**, Mittal L, Proctor DM. Inhalation cancer risk assessment of cobalt metal. Presented at Society of Toxicology 55th Annual Meeting, New Orleans, LA, March 13-17, 2016.

Thompson CM, Suh M, Hixon G, Bichteler A. Comparison of smoothing spline regression and conventional modeling approaches for quantitative risk assessments of human dioxin exposure. Presented at Society of Toxicology 54th Annual Meeting, San Diego, CA, March 22-26, 2015.

Thompson CM, Young RR, Suh M, Dinesdurage H, Elbekai R, Harris, MA, Rohr AC, Proctor DM. Hexavalent chromium does not induce mutations in the oral mucosa of transgenic Big Blue® rats following drinking water exposures at a carcinogenic dose. Presented at Society of Toxicology 54th Annual Meeting, San Diego, CA, March 22-26, 2015.

Harris MA, **Thompson CM,** Proctor DM, Suh M, Wolf JC, Haws LC, Seiter JM, Chappell MA, Haws LC. Analysis of duodenal crypt health following exposure to Cr(VI) in drinking water. Presented at Society of Toxicology 54th Annual Meeting, San Diego, CA, March 22-26, 2015.

Urban JD, **Thompson CM**, Plunkett LM, Perry CS, Haws LC. A state of the science copper reference dose for soil remediation. Presented at Society of Toxicology 54th Annual Meeting, San Diego, CA, March 22-26, 2015.

Proctor D, Suh M, **Thompson C**, Hixon G. Inhalation cancer risk assessment of titanium dioxide Presented at Society of Toxicology 54th Annual Meeting, San Diego, CA, March 22-26, 2015.

Borghoff S, Wikoff D, White MC, **Thompson CM**, Haws LC. Identification of the molecular initiating event (MIE) for TBBPA-induced uterine tumors in the framework of an adverse outcome pathway (AOP). Presented at Society of Toxicology 54th Annual Meeting, San Diego, CA, March 22-26, 2015.

Haws LC, **Thompson C**, Perry C, White M, Fitzgerald L, Borghoff S, Wikoff D. Development of non-cancer based toxicity factors and daily dose estimates for TBBPA. Presented at Society of Toxicology 53rd Annual Meeting, Phoenix, AZ, March 23-27, 2014.

Hixon JG, **Thompson C**, Bichteler A, Abraham L. Smoothing regression splines as the basis for dose-response modeling. Presented at Society of Toxicology 53rd Annual Meeting, Phoenix, AZ, March 23-27, 2014.

Thompson CM, Proctor DM, Suh M, Wolf JC, Haws LC, Seiter JM, Chappell MA, Harris MA. X-ray fluorescence microspectroscopic analysis of duodenal mucosae following Cr(VI) exposure in drinking water. Presented at Society of Toxicology 53rd Annual Meeting, Phoenix, AZ, March 23-27, 2014.

Wikoff D, **Thompson C**, Perry C, White M, Fitzgerald L, Borghoff S, Haws LC. Development of an oral cancer slope factor and lifetime average daily dose estimates for TBBPA. Presented at Society of Toxicology 53rd Annual Meeting, Phoenix, AZ, March 23-27, 2014.

Harris MA, **Thompson CM**, Wolf JC, Fedorov Y, Hixon JG, Proctor DM, Suh M, Haws LC. Assessment of genotoxic potential of Cr(VI) in the intestine via in vivo intestinal micronucleus assay and in vitro high content analysis in differentiated and undifferentiated Caco-2. Presented at Society of Toxicology 51st Annual Meeting, San Francisco, CA, March 11-15, 2012.

Kim S, Kopec A, Forgacs AL, **Thompson CM**, Zacharewski T. Genome-wide gene expression analysis of Cr(VI) effects in fisher rat small intestinal epithelium. Presented at Society of Toxicology 51st Annual Meeting, San Francisco, CA, March 11-15, 2012.

Kopec A, Forgacs AL, Kim S, **Thompson CM**, Zacharewski T. Comparative toxicogenomic analysis of Cr(VI) effects in rat and mouse small intestine. Presented at the Society of Toxicology's 51st Annual Meeting, San Francisco, CA, March 11-15, 2012.

O'Brien TJ, Hao D, Suh M, Proctor DM, **Thompson CM**, Harris MA, Parsons BL, Meyers MB. K-ras codon 12 GGT to GAT mutation is not elevated in the duodenum of mice subchronically exposed to hexavalent chromium in drinking water. Presented at Society of Toxicology 51st Annual Meeting, San Francisco, CA, March 11-15, 2012.

Proctor DM, **Thompson CM**, Suh M, Haws LC and Harris MA. Mode of action for intestinal carcinogenesis of ingested hexavalent chromium in mice. Presented at Society of Toxicology 51st Annual Meeting, San Francisco, CA, March 11-15, 2012.

Thompson CM, Hixon JG, Kopec AK, Harris MA, Proctor DM, Haws LC. Assessment of genotoxic potential of Cr(VI) in the mouse duodenum via toxicogenomic profiling. Presented at Society of Toxicology 51st Annual Meeting, San Francisco, CA, March 11-15, 2012.

Urban J, Rowlands JC, Budinsky R, Dombkowski A, **Thompson CM**, Thomas RS. A Genomics-based benchmark dose analyses of relative potencies of dioxin like compounds in primary rat hepatocytes. Presented at Society of Toxicology 51st Annual Meeting, San Francisco, CA, March 11-15, 2012.

Thomas RS, Rowlands JC, Budinsky RA, **Thompson CM**, Urban JD, Dombkowski, A. Genomic approaches for relative potency assessment. Dioxin 2011, Brussels, Belgium, August 21-25, 2011.

Wikoff DS, **Thompson C**, Walker N, DeVito M, Harris M, Birnbaum L, Haws L. Derivation of relative potency estimates using benchmark dose modeling: a case study with TCDF. Dioxin 2011, Brussels, Belgium, August 21-25, 2011.

Ceder R, Merne M, Nilsson JA, Staab C, Höög JO, **Thompson CM**, Grafström RC. Toxicogenomic profiling of formaldehyde-exposed normal and transformed human oral keratinocytes. Presented at Society of Toxicology 50th Annual Meeting, Washington, D.C., March 6-10, 2011.

Haws L, Proctor D, **Thompson C**, Harris M. Research plan to fill data gaps in the mode of action for cancer risk assessment of hexavalent chromium in drinking water. Presented at Society of Toxicology 50th Annual Meeting, Washington, D.C., March 6-10, 2011.

Kim S, **Thompson CM**, Kopec AK, Harris MA, Zacharewski TR. Comparison of basal and CrVI-mediated solute carrier gene expression in rodent duodenal epithelium. Presented at Society of Toxicology 50th Annual Meeting, Washington, D.C., March 6-10, 2011.

Proctor D, **Thompson C**, Haws L, Harris M. Use of mode of action and pharmacokinetic findings to inform the cancer risk assessment of ingested Cr(VI): A Case Study. Presented at Society of Toxicology 50th Annual Meeting, Washington, D.C., March 6-10, 2011.

Thompson C, Perry C, Gaylor D, Tachovsky A, Burkhalter B, Haws L. Derivation of an oral reference dose and drinking water screening level for sulfolane using benchmark dose modeling. Presented at Society of Toxicology 50th Annual Meeting, Washington, D.C., March 6-10, 2011.

Thompson CM, Proctor D, Haws L, Harris M. Mode of action for the cancer risk assessment of ingested hexavalent chromium: Identifying and resolving data gaps. Presented at Society of Toxicology 49th Annual Meeting, Salt Lake City, UT, March 7-11, 2010. (*Blue Ribbon Award*)

Johns D, Dewoskin R, **Thompson CM**, Krishnan K, Barton HA, Sonawane B. Development of a physiological parameters database for physiologically-based pharmacokinetic (PBPK) modeling. Presented at Society of Toxicology 49th Annual Meeting, Salt Lake City, UT, March 7-11, 2010.

Sonawane B, Johns D, **Thompson CM**, Barton H, Hattis D, Tardif R, Krishnan K. Evaluation of physiological parameters in adult rats and mice for populating an ACCESS database. Presented at Society of Toxicology 47th Annual Meeting, Seattle, WA, March 16-20, 2008. (*Blue Ribbon Award*).

Thompson CM. Dosimetric adjustments across lifestages in risk assessment. In: Symposia Session Considering Lifestage in PBPK Modeling for Risk Assessment. Society for Risk Analysis Annual Meeting, San Antonio, TX, December 9-12, 2007.

Thompson CM. Children's risk assessment and PBPK modeling. In symposia session Physiological Parameters and PBPK Modeling for Children's Risk Assessment. Society of Toxicology 46th Annual Meeting, Charlotte, NC, March 25-29, 2007.

Thompson CM. Physiologically based pharmacokinetic (PBPK) modeling in the elderly. Society of Toxicology 46th Annual Meeting, Charlotte, NC, March 25-29, 2007.

Sonawane B, **Thompson CM**, Hattis D, Tardif R, Krishnan K. Physiological parameters in healthy and diseased elderly. Society of Toxicology 46th Annual Meeting, Charlotte, NC, March 25-29, 2007.

Euling SY, Makris S, Sen B, Kim A, Benson B, Gaido K, Wilson V, Keshava C, Keshava N, White L, Foster P, Androulakis I, Ovacik M, Ierapetritou M, Gray LE, **Thompson CM**, Barone S, Chiu W, William W, Panos G. Use of toxicogenomics data in risk assessment: A case study on dibutyl phthalate and male reproductive developmental effects. Society of Toxicology 46th Annual Meeting, Charlotte, NC, March 25-29, 2007.

Thompson CM, Grafström RC. Noncytotoxic cell proliferation as a subcomponent of the mode of action for formaldehyde-induced carcinogenesis. Society for Toxicology 45th Annual Meeting, San Diego, CA, March 5-9, 2006.

Whalan JE, DeVoney D, **Thompson CM**, White P, Vandenberg JJ. Proposed cancer mode of action for formaldehyde based on EPA cancer guidelines. Society for Toxicology 45th Annual Meeting, San Diego, CA, March 5-9, 2006.

DeWoskin RS, **Thompson CM**. PBPK model simulations of kidney physiology and variability in renal clearance. Society of Toxicology 44th Annual Meeting, New Orleans, LA, March 6-10, 2005.

Barone S, Brown R, Euling S, Cohen-Hubal E, Kimmel CA, Makris S, Moya J, Selevan S, Sonawane B, Thomas T, **Thompson CM**. Development of a children's health risk assessment framework using a life-stage approach. Society of Toxicology 44th Annual Meeting, New Orleans, LA, March 6-10, 2005.

Thompson CM. Population distribution of ALDH2 genetic polymorphism: Implications for risk assessment & genetic polymorphism in CYP2E1: Population distribution of CYP2E1 activity. Evolving Genetics and Its Global Impact, Bangkok, Thailand, 2004.

Thompson CM, Wojno H, Selley DE. Pharmacodynamics of codones and morphones at mu and delta opioid receptors. International Narcotics Research Conference, Monterey, CA, 2002.

Thompson CM, Capdevila JH, Strobel HW. P450 2D18-Mediated metabolism of dopamine and arachidonic acid. 29th Annual Gordon Research Conference on Drug Metabolism, Plymouth, NH, 1999.

Thompson CM, Kawashima H, Strobel HW. Protein expression and purification of P450 2D18 and analysis of activity towards the tricyclic antidepressants imipramine and desipramine. 28th Annual Gordon Research Conference on Drug Metabolism, Session A, Plymouth, NH, 1998.

Thompson CM, Bernhard AE, Strobel HW. Barbiturate-induced expression of neuronal nitric oxide synthase in the rat cerebellum. XIth International Symposium on Microsomes and Drug Oxidations, Los Angeles, CA, 1996. pp. 205.

Patel PR, **Thompson CM**, Vida TA. The VPS33 protein is membrane associated and functions in vacuolar protein transport. *Yeast Cell Biology*, pp. 73. Cold Spring Harbor, New York, 1995.