

Appendix A, Part 3: CSS Publications

Below are publications affiliated with the CSS program, published in 2019 – present.

Adams, V. H., M. A. Bazar, E. N. Reinke, et al. (2020). "In vitro and in vivo effects of 5-aminotetrazole (5-AT), an energetic compound." Regulatory Toxicology and Pharmacology **111**: 104573.

Addington, C. K., K. A. Phillips and K. K. Isaacs (2020). "Estimation of the Emission Characteristics of SVOCs from Household Articles Using Group Contribution Methods." Environ Sci Technol **54**(1): 110-119.

Adeleye, A. S., K. T. Ho, M. Zhang, et al. (2019). "Fate and Transformation of Graphene Oxide in Estuarine and Marine Waters." Environmental Science & Technology **53**(10): 5858-5867.

Allen, T. E. H., M. D. Nelms, S. W. Edwards, et al. (2020). "In Silico Guidance for In Vitro Androgen and Glucocorticoid Receptor ToxCast Assays." Environmental Science & Technology **54**(12): 7461-7470.

Alvarez-Gonzalez, M. Y., E. Sánchez-Islas, S. Mucio-Ramirez, et al. (2020). "Perinatal exposure to octabromodiphenyl ether mixture, DE-79, alters the vasopressinergic system in adult rats." Toxicol Appl Pharmacol **391**: 114914.

Ankley, G., J. Berninger, B. Blackwell, et al. (2020). "Pathway-Based Approaches for Assessing Biological Hazards of Complex Mixtures of Contaminants: A Case Study in the Maumee River." Environmental Toxicology and Chemistry Published Online.

Ankley, G. T., B. R. Blackwell, J. E. Cavallin, et al. (2020). "Adverse Outcome Pathway Network-Based Assessment of the Interactive Effects of an Androgen Receptor Agonist and an Aromatase Inhibitor on Fish Endocrine Function." Environ Toxicol Chem **39**(4): 913-922.

Avant, B., D. Bouchard, X. Chang, et al. (2019). "Environmental fate of multiwalled carbon nanotubes and graphene oxide across different aquatic ecosystems." NanoImpact **13**: 1-12.

Awkerman, J., S. Raimondo, A. Schmolke, et al. (2020). "Guidance for Developing Amphibian Population Models for Ecological Risk Assessment." Integrated Environmental Assessment and Management **16**(2): 223-233.

Awkerman, J. A., C. M. Lavelle, W. M. Henderson, et al. (2020). "Cross-Taxa Distinctions in Mechanisms of Developmental Effects for Aquatic Species Exposed to Trifluralin." Environmental Toxicology and Chemistry **39**(9): 1797-1812.

Baek, S., S. H. Joo, C. Su, et al. (2019). "Antibacterial effects of graphene- and carbon-nanotube-based nanohybrids on Escherichia coli: Implications for treating multidrug-resistant bacteria." J Environ Manage **247**: 214-223.

Baek, S., S. H. Joo, C. Su, et al. (2020). "Toxicity of ZnO/TiO₂ -conjugated carbon-based nanohybrids on the coastal marine alga *Thalassiosira pseudonana*." Environ Toxicol **35**(1): 87-96.

Baker, N. C., N. S. Sipes, J. Franzosa, et al. (2020). "Characterizing cleft palate toxicants using ToxCast data, chemical structure, and the biomedical literature." Birth Defects Res **112**(1): 19-39.

Balik-Meisner, M. R., D. Mav, D. P. Phadke, et al. (2019). "Development of a Zebrafish S1500+ Sentinel Gene Set for High-Throughput Transcriptomics." Zebrafish **16**(4): 331-347.

Barrett, W. M., S. Takkellapati, K. Tadele, et al. (2019). "Linking Molecular Structure via Functional Group to Chemical Literature for Establishing a Reaction Lineage for Application to Alternatives Assessment." ACS Sustainable Chemistry & Engineering **7**(8): 7630-7641.

Beger, R. D., W. B. Dunn, A. Bandukwala, et al. (2019). "Towards quality assurance and quality control in untargeted metabolomics studies." Metabolomics **15**(1): 4.

Bell, S., A. Zsom, J. Conley, et al. (2020). "Automated identification of multinucleated germ cells with U-Net." PLoS One **15**(7): e0229967.

Belsky, J. E., A. A. Camp and D. M. Lehmann (2020). "The Importance of Males to Bumble Bee (*Bombus* Species) Nest Development and Colony Viability." Insects **11**(8).

Berninger, J. P., D. M. DeMarini, S. H. Warren, et al. (2019). "Predictive Analysis Using Chemical-Gene Interaction Networks Consistent with Observed Endocrine Activity and Mutagenicity of U.S. Streams." Environ Sci Technol **53**(15): 8611-8620.

Bertotto, L. B., T. R. Catron and T. Tal (2020). "Exploring interactions between xenobiotics, microbiota, and neurotoxicity in zebrafish." Neurotoxicology **76**: 235-244.

Blackwell, B. R. and G. T. Ankley (2021). "Simultaneous determination of a suite of endogenous steroids by LC-APPI-MS: Application to the identification of endocrine disruptors in aquatic toxicology." Journal of Chromatography B **1163**: 122513.

Blackwell, B. R., G. T. Ankley, P. M. Bradley, et al. (2019). "Potential Toxicity of Complex Mixtures in Surface Waters from a Nationwide Survey of United States Streams: Identifying in Vitro Bioactivities and Causative Chemicals." Environ Sci Technol **53**(2): 973-983.

Borrel, A., S. S. Auerbach, K. A. Houck, et al. (2020). "Tox21BodyMap: a webtool to map chemical effects on the human body." Nucleic Acids Research **48**(W1): W472-W476.

Borrel, A., R. Huang, S. Sakamuru, et al. (2020). "High-Throughput Screening to Predict Chemical-Assay Interference." Scientific Reports **10**(1): 3986.

Boyes, W. K. and C. van Thriel (2020). "Neurotoxicology of Nanomaterials." Chem Res Toxicol **33**(5): 1121-1144.

Boyle, N. K., T. L. Pitts-Singer, J. Abbott, et al. (2019). "Workshop on Pesticide Exposure Assessment Paradigm for Non-Apis Bees: Foundation and Summaries." Environmental Entomology **48**(1): 4-11.

Brandon, N., K. L. Dionisio, K. Isaacs, et al. (2020). "Simulating exposure-related behaviors using agent-based models embedded with needs-based artificial intelligence." J Expo Sci Environ Epidemiol **30**(1): 184-193.

Brew, D. W., M. C. Black, M. Santos, et al. (2020). "Metabolomic Investigations of the Temporal Effects of Exposure to Pharmaceuticals and Personal Care Products and Their Mixture in the Eastern Oyster (*Crassostrea virginica*).\" Environ Toxicol Chem **39**(2): 419-436.

Brill, J. L., S. E. Belanger, M. G. Barron, et al. (2021). "Derivation of algal acute to chronic ratios for use in chemical toxicity extrapolations.\" Chemosphere **263**: 127804.

Buckalew, A. R., J. Wang, A. S. Murr, et al. (2020). "Evaluation of potential sodium-iodide symporter (NIS) inhibitors using a secondary Fischer rat thyroid follicular cell (FRTL-5) radioactive iodide uptake (RAIU) assay.\" Arch Toxicol **94**(3): 873-885.

Burgoon, L. D., M. Angrish, N. Garcia-Reyero, et al. (2020). "Predicting the Probability that a Chemical Causes Steatosis Using Adverser Outcome Pathway Bayesian Networks (AOPBNs).\" Risk Analysis **40**(3): 512-523.

Burkhard, L. P., T. Lahren, T. L. Highland, et al. (2019). "Bioaccumulation of Highly Hydrophobic Chemicals by *Lumbriculus variegatus*.\" Archives of Environmental Contamination and Toxicology **76**(1): 129-141.

Byrley, P., M. A. Geer Wallace, W. K. Boyes, et al. (2020). "Particle and volatile organic compound emissions from a 3D printer filament extruder.\" Sci Total Environ **736**: 139604.

Byrley, P., B. J. George, W. K. Boyes, et al. (2019). "Particle emissions from fused deposition modeling 3D printers: Evaluation and meta-analysis.\" Sci Total Environ **655**: 395-407.

Camp, A. A., M. A. Batres, W. C. Williams, et al. (2020). "Effects of the Neonicotinoid Acetamiprid in Pollen on *Bombus impatiens* Microcolony Development.\" Environ Toxicol Chem **39**(12): 2560-2569.

Camp, A. A., M. A. Batres, W. C. Williams, et al. (2020). "Impact of Diflubenzuron on *Bombus impatiens* (Hymenoptera: Apidae) Microcolony Development.\" Environ Entomol **49**(1): 203-210.

Camp, A. A. and D. M. Lehmann (2020). "Impacts of neonicotinoids on the bumble bees *Bombus terrestris* and *Bombus impatiens* examined through an Adverse Outcome Pathway framework lens.\" Environmental Toxicology and Chemistry Published online.

Camp, A. A., W. C. Williams, B. D. Eitzer, et al. (2020). "Effects of the neonicotinoid acetamiprid in syrup on *Bombus impatiens* (Hymenoptera: Apidae) microcolony development.\" PLoS One **15**(10): e0241111.

Catron, T. R., S. P. Keely, N. E. Brinkman, et al. (2019). "Host Developmental Toxicity of BPA and BPA Alternatives Is Inversely Related to Microbiota Disruption in Zebrafish.\" Toxicol Sci **167**(2): 468-483.

Catron, T. R., A. Swank, L. C. Wehmas, et al. (2019). "Microbiota alter metabolism and mediate neurodevelopmental toxicity of 17 β -estradiol.\" Sci Rep **9**(1): 7064.

Cavallin, J. E., W. A. Battaglin, J. Beihoffer, et al. (2020). "Effects-Based Monitoring of Bioactive Chemicals Discharged to the Colorado River before and after a Municipal Wastewater Treatment Plant Replacement.\" Environmental Science & Technology.

Chao, A., H. Al-Ghoul, A. D. McEachran, et al. (2020). "In silico MS/MS spectra for identifying unknowns: a critical examination using CFM-ID algorithms and ENTACT mixture samples." Anal Bioanal Chem **412**(6): 1303-1315.

Chauhan, V., D. Villeneuve and D. Cool (2020). "Collaborative Efforts Are Needed Among the Scientific Community to Advance the Adverse Outcome Pathway Concept in Areas of Radiation Risk Assessment." Int J Radiat Biol: 1-20.

Cho, E., J. K. Buick, A. Williams, et al. (2019). "Assessment of the performance of the TGx-DDI biomarker to detect DNA damage-inducing agents using quantitative RT-PCR in TK6 cells." Environ Mol Mutagen **60**(2): 122-133.

Chorley, B. N., G. K. Carswell, G. Nelson, et al. (2020). "Early microRNA indicators of PPAR α pathway activation in the liver." Toxicology Reports **7**: 805-815.

Chorley, B. N., H. Ellinger-Ziegelbauer, M. Tackett, et al. (2020). "Urinary miRNA Biomarkers of Drug-Induced Kidney Injury and Their Site Specificity Within the Nephron." Toxicological Sciences.

Christopher Corton, J. (2019). "Integrating gene expression biomarker predictions into networks of adverse outcome pathways." Current Opinion in Toxicology **18**: 54-61.

Clar, J. G., W. E. Platten, E. Baumann, et al. (2019). "Transformation and release of nanoparticle additives & byproducts from commercially available surface coatings on pressure treated lumber via dermal contact." Science of The Total Environment **694**: 133669.

Clar, J. G., W. E. Platten, E. Baumann, et al. (2019). "Release and transformation of ZnO nanoparticles used in outdoor surface coatings for UV protection." Science of The Total Environment **670**: 78-86.

Clewell, R. A., J. A. Leonard, C. I. Nicolas, et al. (2020). "Application of a combined aggregate exposure pathway and adverse outcome pathway (AEP-AOP) approach to inform a cumulative risk assessment: A case study with phthalates." Toxicology in Vitro **66**: 104855.

Collette, T. W., D. R. Ekman, H. Zhen, et al. (2019). "Cell-Based Metabolomics for Untargeted Screening and Prioritization of Vertebrate-Active Stressors in Streams Across the United States." Environ Sci Technol **53**(15): 9232-9240.

Conley, J. M., C. S. Lambright, N. Evans, et al. (2021). "Hexafluoropropylene oxide-dimer acid (HFPO-DA or GenX) alters maternal and fetal glucose and lipid metabolism and produces neonatal mortality, low birthweight, and hepatomegaly in the Sprague-Dawley rat." Environ Int **146**: 106204.

Conley, J. M., C. S. Lambright, N. Evans, et al. (2019). "Adverse Maternal, Fetal, and Postnatal Effects of Hexafluoropropylene Oxide Dimer Acid (GenX) from Oral Gestational Exposure in Sprague-Dawley Rats." Environ Health Perspect **127**(3): 37008.

Connors, K. A., A. Beasley, M. G. Barron, et al. (2019). "Creation of a Curated Aquatic Toxicology Database: EnviroTox." Environmental Toxicology and Chemistry **38**(5): 1062-1073.

- Corsi, S. R., L. A. De Cicco, D. L. Villeneuve, et al. (2019). "Prioritizing chemicals of ecological concern in Great Lakes tributaries using high-throughput screening data and adverse outcome pathways." Sci Total Environ **686**: 995-1009.
- Corton, J. C. (2019). "Frequent Modulation of the Sterol Regulatory Element Binding Protein (SREBP) by Chemical Exposure in the Livers of Rats." Comput Toxicol **10**: 113-129.
- Corton, J. C., T. Hill, J. J. Sutherland, et al. (2020). "A Set of Six Gene Expression Biomarkers Identify Rat Liver Tumorigens in Short-term Assays." Toxicol Sci **177**(1): 11-26.
- Corton, J. C., N. C. Kleinstreuer and R. S. Judson (2019). "Identification of potential endocrine disrupting chemicals using gene expression biomarkers." Toxicol Appl Pharmacol **380**: 114683.
- Corton, J. C., K. L. Korunes, J. Abedini, et al. (2020). "Thresholds Derived From Common Measures in Rat Studies Are Predictive of Liver Tumorigenic Chemicals." Toxicol Pathol **48**(7): 857-874.
- Corton, J. C., K. L. Witt and C. L. Yauk (2019). "Identification of p53 Activators in a Human Microarray Compendium." Chem Res Toxicol **32**(9): 1748-1759.
- Crofton, K. M., M. Gilbert, K. P. Friedman, et al. (2019). "Adverse Outcome Pathway on inhibition of Thyroperoxidase and subsequent adverse neurodevelopmental outcomes in mammals."
- Deisenroth, C., D. E. DeGroot, T. Zurlinden, et al. (2020). "The Alginate Immobilization of Metabolic Enzymes Platform Retrofits an Estrogen Receptor Transactivation Assay With Metabolic Competence." Toxicol Sci **178**(2): 281-301.
- Deisenroth, C., V. Y. Soldatow, J. Ford, et al. (2020). "Development of an In Vitro Human Thyroid Microtissue Model for Chemical Screening." Toxicol Sci **174**(1): 63-78.
- Deziel, N. C., L. E. Beane Freeman, J. A. Hoppin, et al. (2019). "An algorithm for quantitatively estimating non-occupational pesticide exposure intensity for spouses in the Agricultural Health Study." Journal of Exposure Science & Environmental Epidemiology **29**(3): 344-357.
- Doering, J. A., D. L. Villeneuve, K. A. Fay, et al. (2019). "Differential Sensitivity to In Vitro Inhibition of Cytochrome P450 Aromatase (CYP19) Activity Among 18 Freshwater Fishes." Toxicol Sci **170**(2): 394-403.
- Doering, J. A., D. L. Villeneuve, S. T. Poole, et al. (2019). "Quantitative Response-Response Relationships Linking Aromatase Inhibition to Decreased Fecundity are Conserved Across Three Fishes with Asynchronous Oocyte Development." Environmental Science & Technology **53**(17): 10470-10478.
- Doering, J. A., D. L. Villeneuve, C. B. Tilton, et al. (2021). "Assessing effects of aromatase inhibition on fishes with group-synchronous oocyte development using western mosquitofish (*Gambusia affinis*) as a model." Aquatic Toxicology **232**: 105741.
- Eichler, C. M. A., E. A. Cohen Hubal and J. C. Little (2019). "Assessing Human Exposure to Chemicals in Materials, Products and Articles: The International Risk Management Landscape for Phthalates." Environ Sci Technol **53**(23): 13583-13597.

Elliott, S. M., W. T. Route, L. A. DeCicco, et al. (2019). "Contaminants in bald eagles of the upper Midwestern U.S.: A framework for prioritizing future research based on in-vitro bioassays." Environmental Pollution **244**: 861-870.

Ellison, C. A., K. L. Blackburn, P. L. Carmichael, et al. (2019). "Challenges in working towards an internal threshold of toxicological concern (iTTC) for use in the safety assessment of cosmetics: Discussions from the Cosmetics Europe iTTC Working Group workshop." Regulatory Toxicology and Pharmacology **103**: 63-72.

Emara, Y., P. Fantke, R. Judson, et al. (2021). "Integrating endocrine-related health effects into comparative human toxicity characterization." Science of The Total Environment **762**: 143874.

Evans, A. M., C. O'Donovan, M. Playdon, et al. (2020). "Dissemination and analysis of the quality assurance (QA) and quality control (QC) practices of LC-MS based untargeted metabolomics practitioners." Metabolomics **16**(10): 113.

Faber, S. C., N. A. McNabb, P. Ariel, et al. (2020). "Exposure Effects Beyond the Epithelial Barrier: Transepithelial Induction of Oxidative Stress by Diesel Exhaust Particulates in Lung Fibroblasts in an Organotypic Human Airway Model." Toxicological Sciences **177**(1): 140-155.

Flynn, K., R. Johnson, D. Lothenbach, et al. (2020). "The effects of combinations of limited ration and diazinon exposure on acetylcholinesterase activity, growth and reproduction in *Oryzias latipes*, the Japanese medaka." Journal of Applied Toxicology **40**(4): 535-547.

Gaballah, S., A. Swank, J. R. Sobus, et al. (2020). "Evaluation of Developmental Toxicity, Developmental Neurotoxicity, and Tissue Dose in Zebrafish Exposed to GenX and Other PFAS." Environ Health Perspect **128**(4): 47005.

Gannon, A. M., M. Moreau, R. Farmahin, et al. (2019). "Hexabromocyclododecane (HBCD): A case study applying tiered testing for human health risk assessment." Food Chem Toxicol **131**: 110581.

Gilbert, M. E., K. L. O'Shaughnessy and M. Axelstad (2020). "Regulation of Thyroid-disrupting Chemicals to Protect the Developing Brain." Endocrinology **161**(10).

Glinski, D. A., S. T. Purucker, R. J. Van Meter, et al. (2019). "Endogenous and exogenous biomarker analysis in terrestrial phase amphibians (*Lithobates sphenoccephala*) following dermal exposure to pesticide mixtures." Environmental Chemistry **16**(1): 55-67.

Gonzalez, M. A., S. Takkellapati, K. Tadele, et al. (2019). "Framework toward More Sustainable Chemical Synthesis Design—A Case Study of Organophosphates." ACS Sustainable Chemistry & Engineering **7**(7): 6744-6757.

Gray, L. E., J. R. Furr, J. M. Conley, et al. (2019). "A Conflicted Tale of Two Novel AR Antagonists In Vitro and In Vivo: Pyrifluquinazon Versus Bisphenol C." Toxicol Sci **168**(2): 632-643.

Gray, L. E., J. R. Furr, C. S. Lambright, et al. (2020). "Quantification of the Uncertainties in Extrapolating From In Vitro Androgen Receptor Antagonism to In Vivo Hershberger Assay Endpoints and Adverse Reproductive Development in Male Rats." Toxicol Sci **176**(2): 297-311.

Greggs, W., T. Burns, P. Egeghy, et al. (2019). "Qualitative approach to comparative exposure in alternatives assessment." Integr Environ Assess Manag **15**(6): 880-894.

Grulke, C. M., A. J. Williams, I. Thillanadarajah, et al. (2019). "EPA's DSSTox database: History of development of a curated chemistry resource supporting computational toxicology research." Computational Toxicology **12**: 100096.

Hallinger, D. R., H. B. Lindsay, K. Paul Friedman, et al. (2020). "Respirometric Screening and Characterization of Mitochondrial Toxicants Within the ToxCast Phase I and II Chemical Libraries." Toxicol Sci **176**(1): 175-192.

Hamm, J. T., P. Ceger, D. Allen, et al. (2019). "Characterizing sources of variability in zebrafish embryo screening protocols." Altex **36**(1): 103-120.

Han, C., E. Sahle-Demessie, E. Varughese, et al. (2019). "Polypropylene-MWCNT composite degradation, and release, detection and toxicity of MWCNTs during accelerated environmental aging." Environmental Science: Nano **6**(6): 1876-1894.

Han, Y., C. D. Knightes, D. Bouchard, et al. (2019). "Simulating graphene oxide nanomaterial phototransformation and transport in surface water." Environmental Science: Nano **6**(1): 180-194.

Hanson, K. B., D. J. Hoff, T. J. Lahren, et al. (2019). "Estimating n-octanol-water partition coefficients for neutral highly hydrophobic chemicals using measured n-butanol-water partition coefficients." Chemosphere **218**: 616-623.

Harrill, J., I. Shah, R. W. Setzer, et al. (2019). "Considerations for Strategic Use of High-Throughput Transcriptomics Chemical Screening Data in Regulatory Decisions." Curr Opin Toxicol **15**: 64-75.

Harten, P., T. Martin, M. Gonzalez, et al. (2020). "The software tool to find greener solvent replacements, PARIS III." Environ Prog Sustain Energy **39**(1): 1-13331.

Haselman, J. T., J. H. Olker, P. A. Kosian, et al. (2020). "Targeted Pathway-based In Vivo Testing Using Thyroperoxidase Inhibition to Evaluate Plasma Thyroxine as a Surrogate Metric of Metamorphic Success in Model Amphibian *Xenopus laevis*." Toxicol Sci **175**(2): 236-250.

Hassan, I., H. El-Masri, J. Ford, et al. (2020). "Extrapolating In Vitro Screening Assay Data for Thyroperoxidase Inhibition to Predict Serum Thyroid Hormones in the Rat." Toxicol Sci **173**(2): 280-292.

He, X., H. Zhang, H. Shi, et al. (2020). "Fates of Au, Ag, ZnO, and CeO(2) Nanoparticles in Simulated Gastric Fluid Studied using Single-Particle-Inductively Coupled Plasma-Mass Spectrometry." J Am Soc Mass Spectrom **31**(10): 2180-2190.

He, Y., S. R. Al-Abed and D. D. Dionysiou (2019). "Multivariate calibration for carbon nanotubes in the environment using the microwave induced heating method." Environmental Nanotechnology, Monitoring & Management **11**: 100204.

He, Y., S. R. Al-Abed, P. M. Potter, et al. (2019). "Rapid and versatile pre-treatment for quantification of multi-walled carbon nanotubes in the environment using microwave-induced heating." Environ Sci Pollut Res Int **26**(14): 13999-14012.

Hecker, M. and C. A. LaLone (2019). "Adverse Outcome Pathways: Moving from a Scientific Concept to an Internationally Accepted Framework." Environ Toxicol Chem **38**(6): 1152-1163.

Helman, G., G. Patlewicz and I. Shah (2019). "Quantitative prediction of repeat dose toxicity values using GenRA." Regul Toxicol Pharmacol **109**: 104480.

Helman, G., I. Shah, A. J. Williams, et al. (2019). "Generalized Read-Across (GenRA): A workflow implemented into the EPA CompTox Chemicals Dashboard." Altex **36**(3): 462-465.

Henson, T. E., J. Navratilova, A. H. Tennant, et al. (2019). "In vitro intestinal toxicity of copper oxide nanoparticles in rat and human cell models." Nanotoxicology **13**(6): 795-811.

Hernandez-Betancur, J. D. and G. J. Ruiz-Mercado (2019). "Sustainability Indicators for End-of-Life Chemical REleases and Potential Exposure." Curr Opin Chem Eng **26**: 157-163.

Hernandez-Betancur, J. D., G. J. Ruiz-Mercado, J. P. Abraham, et al. (2020). "Data engineering for tracking chemicals and releases at industrial end-of-life activities." Journal of Hazardous Materials: 124270.

Heusinkveld, H. J., Y. C. M. Staal, N. C. Baker, et al. (2020). "An ontology for developmental processes and toxicities of neural tube closure." Reproductive Toxicology.

Hill III, T. and R. B. Conolly (2019). "Development of a novel AOP for Cyp2F2-mediated Lung Cancer in Mice." Toxicol Sci.

Honda, G. S., R. G. Pearce, L. L. Pham, et al. (2019). "Using the concordance of in vitro and in vivo data to evaluate extrapolation assumptions." PLoS One **14**(5): e0217564.

Houck, K. A., A. Simha, A. Bone, et al. (2021). "Evaluation of a multiplexed, multispecies nuclear receptor assay for chemical hazard assessment." Toxicology in Vitro **72**: 105016.

Hsieh, H.-S. and R. G. Zepp (2019). "Reactivity of graphene oxide with reactive oxygen species (hydroxyl radical, singlet oxygen, and superoxide anion)." Environmental Science: Nano **6**(12): 3734-3744.

Huang, L., N. Anastas, P. Egeghy, et al. (2019). "Integrating exposure to chemicals in building materials during use stage." The International Journal of Life Cycle Assessment **24**(6): 1009-1026.

Huang, W., D. C. Bencic, R. L. Flick, et al. (2019). "Characterization of the Fundulus heteroclitus embryo transcriptional response and development of a gene expression-based fingerprint of exposure for the alternative flame retardant, TBPH (bis (2-ethylhexyl)-tetrabromophthalate)." Environmental Pollution **247**: 696-705.

Huisinga, M., L. Bertrand, R. Chamanza, et al. (2020). "Adversity Considerations for Thyroid Follicular Cell Hypertrophy and Hyperplasia in Nonclinical Toxicity Studies: Results From the 6th ESTP International Expert Workshop." Toxicol Pathol **48**(8): 920-938.

Isaacs, K. K., K. Dionisio, K. Phillips, et al. (2020). "Establishing a system of consumer product use categories to support rapid modeling of human exposure." Journal of Exposure Science & Environmental Epidemiology **30**(1): 171-183.

Jackson, A. C., J. Liu, B. Vallanat, et al. (2020). "Identification of novel activators of the metal responsive transcription factor (MTF-1) using a gene expression biomarker in a microarray compendium." Metalomics **12**(9): 1400-1415.

Johnstone, A. F. M., C. M. Mack, M. C. Valdez, et al. (2020). "Acute in vitro effects on embryonic rat dorsal root ganglion (DRG) cultures by in silico predicted neurotoxic chemicals: Evaluations on cytotoxicity, neurite length, and neurophysiology." Toxicol In Vitro **69**: 104989.

Judson, R., K. Houck, K. Paul Friedman, et al. (2020). "Selecting a minimal set of androgen receptor assays for screening chemicals." Regul Toxicol Pharmacol **117**: 104764.

Judson, R. S., R. S. Thomas, N. Baker, et al. (2019). "Workflow for defining reference chemicals for assessing performance of in vitro assays." Altex **36**(2): 261-276.

Khaksar, M., S. Vasileiadis, R. Sekine, et al. (2019). "Chemical characterisation, antibacterial activity, and (nano)silver transformation of commercial personal care products exposed to household greywater." Environmental Science: Nano **6**(10): 3027-3038.

Khan, B., A. S. Adeleye, R. M. Burgess, et al. (2019). "Effects of graphene oxide nanomaterial exposures on the marine bivalve, *Crassostrea virginica*." Aquatic Toxicology **216**: 105297.

Khan, B., A. S. Adeleye, R. M. Burgess, et al. (2019). "A 72-h exposure study with eastern oysters (*Crassostrea virginica*) and the nanomaterial graphene oxide." Environ Toxicol Chem **38**(4): 820-830.

Khan, B., K. T. Ho and R. M. Burgess (2020). "Application of Biomarker Tools Using Bivalve Models Toward the Development of Adverse Outcome Pathways for Contaminants of Emerging Concern." Environ Toxicol Chem **39**(8): 1472-1484.

Kienzler, A., K. A. Connors, M. Bonnell, et al. (2019). "Mode of Action Classifications in the EnviroTox Database: Development and Implementation of a Consensus MOA Classification." Environ Toxicol Chem **38**(10): 2294-2304.

Kitchin, K. T., J. A. Richards, B. L. Robinette, et al. (2019). "Biochemical effects of some CeO₂, SiO₂, and TiO₂ nanomaterials in HepG2 cells." Cell Biology and Toxicology **35**(2): 129-145.

Kitchin, K. T., J. A. Richards, B. L. Robinette, et al. (2020). "Biochemical Effects of Silver Nanomaterials in Human Hepatocellular Carcinoma (HepG2) Cells." J Nanosci Nanotechnol **20**(9): 5833-5858.

Klinger, E. G., A. A. Camp, J. P. Strange, et al. (2019). "Bombus (Hymenoptera: Apidae) Microcolonies as a Tool for Biological Understanding and Pesticide Risk Assessment." Environ Entomol **48**(6): 1249-1259.

- Knightes, C. D., R. B. Ambrose, Jr., B. Avant, et al. (2019). "Modeling framework for simulating concentrations of solute chemicals, nanoparticles, and solids in surface waters and sediments: WASP8 Advanced Toxicant Module." Environ Model Softw **111**: 444-458.
- Knudsen, T. B., J. D. Pierro and N. C. Baker (2020). "Retinoid signaling in skeletal development: Scoping the system for predictive toxicology." Reprod Toxicol **99**: 109-130.
- Knudsen, T. B., R. M. Spencer, J. D. Pierro, et al. (2020). "Computational biology and in silico toxicodynamics." Current Opinion in Toxicology **23-24**: 119-126.
- Kolanczyk, R. C., J. S. Denny, B. R. Sheedy, et al. (2019). "Estrogenic activity of polycyclic aromatic hydrocarbons in rainbow trout (*Oncorhynchus mykiss*) in vitro assays." Aquat Toxicol **207**: 43-51.
- Kolanczyk, R. C., M. A. Tapper, B. R. Sheedy, et al. (2020). "In vitro metabolism of imidacloprid and acetamiprid in rainbow trout and rat." Xenobiotica **50**(7): 805-814.
- Kosnik, M. B., J. D. Strickland, S. W. Marvel, et al. (2020). "Concentration-response evaluation of ToxCast compounds for multivariate activity patterns of neural network function." Arch Toxicol **94**(2): 469-484.
- Kostich, M. S., D. C. Bencic, A. L. Batt, et al. (2019). "Multigene Biomarkers of Pyrethroid Exposure: Exploratory Experiments." Environmental Toxicology and Chemistry **38**(11).
- Lau, C., J. Rumpler, K. P. Das, et al. (2020). "Pharmacokinetic profile of Perfluorobutane Sulfonate and activation of hepatic nuclear receptor target genes in mice." Toxicology **441**: 152522.
- Laurent, A., B. P. Weidema, J. Bare, et al. (2020). "Methodological review and detailed guidance for the life cycle interpretation phase." Journal of Industrial Ecology **24**(5): 986-1003.
- Lewis, R. W., T. Hill and J. C. Corton (2020). "A set of six Gene expression biomarkers and their thresholds identify rat liver tumorigens in short-term assays." Toxicology **443**: 152547.
- Li, A. A., S. L. Makris, M. S. Marty, et al. (2019). "Practical considerations for developmental thyroid toxicity assessments: What's working, what's not, and how can we do better?" Regul Toxicol Pharmacol **106**: 111-136.
- Li, H., S. Zhang, W. Zhang, et al. (2020). "Endogenous circadian time genes expressions in the liver of mice under constant darkness." BMC Genomics **21**(1): 224.
- Li, S., G. J. Ruiz-Mercado and F. V. Lima (2020). "A Visualization and Control Strategy for Dynamic Sustainability of Chemical Processes." Processes **8**(3): 310.
- Li, S., J. Zhao, R. Huang, et al. (2019). "Use of high-throughput enzyme-based assay with xenobiotic metabolic capability to evaluate the inhibition of acetylcholinesterase activity by organophosphorous pesticides." Toxicol In Vitro **56**: 93-100.

Liang, Y., X. Liu and M. R. Allen (2019). "The influence of temperature on the emissions of organophosphate ester flame retardants from polyisocyanurate foam: Measurement and modeling." Chemosphere **233**: 347-354.

Liberatore, H. K., D. C. Westerman, J. M. Allen, et al. (2020). "High-Resolution Mass Spectrometry Identification of Novel Surfactant-Derived Sulfur-Containing Disinfection Byproducts from Gas Extraction Wastewater." Environmental Science & Technology **54**(15): 9374-9386.

Lin, C. H., D. B. Sponsler, R. T. Richardson, et al. (2020). "Honey bees and neonicotinoid-treated corn seed: contamination, exposure, and effects." Environ Toxicol Chem.

Linakis, M. W., R. R. Sayre, R. G. Pearce, et al. (2020). "Development and evaluation of a high throughput inhalation model for organic chemicals." J Expo Sci Environ Epidemiol **30**(5): 866-877.

Liu, J., Y. F. Lu, J. C. Corton, et al. (2020). "Expression of cytochrome P450 isozyme transcripts and activities in human livers." Xenobiotica: 1-8.

Liu, X., B. R. Bakshi, B. Rugani, et al. (2020). "Quantification and valuation of ecosystem services in life cycle assessment: Application of the cascade framework to rice farming systems." Science of The Total Environment **747**: 141278.

Luo, Y.-S., N. A. Aly, J. McCord, et al. (2020). "Rapid Characterization of Emerging Per- and Polyfluoroalkyl Substances in Aqueous Film-Forming Foams Using Ion Mobility Spectrometry–Mass Spectrometry." Environmental Science & Technology **54**(23): 15024-15034.

Maki, J. A., J. E. Cavallin, K. G. Lott, et al. (2020). "A method for CRISPR/Cas9 mutation of genes in fathead minnow (*Pimephales promelas*)." Aquatic Toxicology **222**: 105464.

Manganelli, S., A. Roncaglioni, K. Mansouri, et al. (2019). "Development, validation and integration of in silico models to identify androgen active chemicals." Chemosphere **220**: 204-215.

Mansouri, K., N. F. Cariello, A. Korotcov, et al. (2019). "Open-source QSAR models for pKa prediction using multiple machine learning approaches." Journal of Cheminformatics **11**(1): 60.

Mansouri, K., N. Kleinstreuer, A. M. Abdelaziz, et al. (2020). "CoMPARA: Collaborative Modeling Project for Androgen Receptor Activity." Environ Health Perspect **128**(2): 27002.

Mason, M., D. Greenwell, M. Barnes, et al. (2019). Development of a Test Method to Characterize Emissions from Spray Polyurethane Foam Insulation During and Following Spray Application in a Full-Scale Test Chamber, Environmental Protection Agency.

McEachran, A. D., I. Balabin, T. Cathey, et al. (2019). "Linking in silico MS/MS spectra with chemistry data to improve identification of unknowns." Scientific Data **6**(1): 141.

McEachran, A. D., A. Chao, H. Al-Ghoul, et al. (2020). "Revisiting Five Years of CASMI Contests with EPA Identification Tools." Metabolites **10**(6).

Medlock Kakaley, E., M. C. Cardon, L. E. Gray, et al. (2019). "Generalized Concentration Addition Model Predicts Glucocorticoid Activity Bioassay Responses to Environmentally Detected Receptor-Ligand Mixtures." Toxicol Sci **168**(1): 252-263.

Medvedev, A. V., L. A. Medvedeva, E. Martsen, et al. (2020). "Harmonized Cross-Species Assessment of Endocrine and Metabolic Disruptors by Ecotox FACTORIAL Assay." Environ Sci Technol **54**(19): 12142-12153.

Melnikov, F., B. C. Geohagen, T. Gavin, et al. (2020). "Application of the hard and soft, acids and bases (HSAB) theory as a method to predict cumulative neurotoxicity." Neurotoxicology **79**: 95-103.

Meter, R. J. V., R. Adelizzi, D. A. Glinski, et al. (2019). "Agrochemical Mixtures and Amphibians: The Combined Effects of Pesticides and Fertilizer on Stress, Acetylcholinesterase Activity, and Bioaccumulation in a Terrestrial Environment." Environmental Toxicology and Chemistry **38**(5): 1052-1061.

Meyer, D. E., S. Cashman and A. Gaglione (2020). "Improving the reliability of chemical manufacturing life cycle inventory constructed using secondary data." Journal of Industrial Ecology Published online.

Meyer, D. E., V. K. Mittal, W. W. Ingwersen, et al. (2019). "Purpose-Driven Reconciliation of Approaches to Estimate Chemical Releases." ACS Sustainable Chemistry & Engineering **7**(1): 1260-1270.

Mezgebe, B., G. Sorial, D. Wendell, et al. (2019). "Effectiveness of biosurfactant for the removal of trihalomethanes by biotrickling filter." Engineering Reports **1**(1).

Miller, D. H., B. W. Clark and D. E. Nacci (2020). "A multidimensional density dependent matrix population model for assessing risk of stressors to fish populations." Ecotoxicol Environ Saf **201**: 110786.

Morgan, M. K. (2020). "Dietary Pyrethroid Exposures and Intake Doses for 188 Duplicate-Single Solid Food Items Consumed by North Carolina Adults." Toxics **8**(1).

Muller, E. B., K. Lika, R. M. Nisbet, et al. (2019). "Regulation of Reproductive Processes with Dynamic Energy Budgets." Funct Ecol **33**(5): 819-832.

Mutel, C., X. Liao, L. Patouillard, et al. (2019). "Overview and recommendations for regionalized life cycle impact assessment." The International Journal of Life Cycle Assessment **24**(5): 856-865.

Nelms, M. D., A. L. Karmaus and G. Patlewicz (2020). "An evaluation of the performance of selected (Q)SARs/expert systems for predicting acute oral toxicity." Comput Toxicol **16**.

Nelms, M. D., R. Lougee, D. W. Roberts, et al. (2019). "Comparing and contrasting the coverage of publicly available structural alerts for protein binding." Computational Toxicology **12**: 100100.

Nelms, M. D. and G. Patlewicz (2020). "Derivation of New Threshold of Toxicological Concern Values for Exposure via Inhalation for Environmentally-Relevant Chemicals." Frontiers in Toxicology **2**: 5.

Nelms, M. D., P. Pradeep and G. Patlewicz (2019). "Evaluating potential refinements to existing Threshold of Toxicological Concern (TTC) values for environmentally-relevant compounds." Regul Toxicol Pharmacol **109**: 104505.

Newton, S. R., J. R. Sobus, E. M. Ulrich, et al. (2020). "Examining NTA performance and potential using fortified and reference house dust as part of EPA's Non-Targeted Analysis Collaborative Trial (ENTACT)." Anal Bioanal Chem **412**(18): 4221-4233.

Nichols, J. W., A. D. Hoffman, J. A. Swintek, et al. (2021). "Addition of Phenylmethanesulfonyl Fluoride Increases the Working Lifetime of the Trout Liver S9 Substrate Depletion Assay, Resulting in Improved Detection of Low Intrinsic Clearance Rates." Environmental Toxicology and Chemistry **40**(1): 148-161.

Nichols, J. W., M. A. Ladd, A. D. Hoffman, et al. (2019). "Biotransformation of Polycyclic Aromatic Hydrocarbons by Trout Liver S9 Fractions: Evaluation of Competitive Inhibition Using a Substrate Depletion Approach." Environmental Toxicology and Chemistry **38**(12): 2729-2739.

Noyes, P. D., K. P. Friedman, P. Browne, et al. (2019). "Evaluating Chemicals for Thyroid Disruption: Opportunities and Challenges with in Vitro Testing and Adverse Outcome Pathway Approaches." Environ Health Perspect **127**(9): 95001.

Nuñez, J. R., S. M. Colby, D. G. Thomas, et al. (2019). "Evaluation of In Silico Multifeature Libraries for Providing Evidence for the Presence of Small Molecules in Synthetic Blinded Samples." J Chem Inf Model **59**(9): 4052-4060.

Nyffeler, J., D. E. Haggard, C. Willis, et al. (2020). "Comparison of Approaches for Determining Bioactivity Hits from High-Dimensional Profiling Data." SLAS DISCOVERY: Advancing the Science of Drug Discovery: 2472555220950245.

Nyffeler, J., C. Willis, R. Lougee, et al. (2020). "Bioactivity screening of environmental chemicals using imaging-based high-throughput phenotypic profiling." Toxicol Appl Pharmacol **389**: 114876.

O'Lenick, C. R., J. D. Pleil, M. A. Stiegel, et al. (2019). "Detection and analysis of endogenous polar volatile organic compounds (PVOCs) in urine for human exposome research." Biomarkers **24**(3): 240-248.

O'Shaughnessy, K. L. and M. E. Gilbert (2020). "Thyroid disrupting chemicals and developmental neurotoxicity - New tools and approaches to evaluate hormone action." Mol Cell Endocrinol **518**: 110663.

Olker, J. H., J. J. Korte, J. S. Denny, et al. (2019). "Screening the ToxCast Phase 1, Phase 2, and e1k Chemical Libraries for Inhibitors of Iodothyronine Deiodinases." Toxicol Sci **168**(2): 430-442.

Olker, J. H., J. J. Korte, J. S. Denny, et al. (2021). "In vitro screening for chemical inhibition of the iodide recycling enzyme, iodothyronine deiodinase." Toxicology in Vitro **71**: 105073.

Ortenzio, J., L. Degn, A. Goldstein-Plessner, et al. (2019). "Determination of silver nanoparticle dose *in vitro*." NanoImpact **14**: 100156.

- O'Shaughnessy, K. L., S. E. Thomas, S. R. Spring, et al. (2019). "A transient window of hypothyroidism alters neural progenitor cells and results in abnormal brain development." Sci Rep **9**(1): 4662.
- Oziolor, E. M., K. DeSchamphelaere, D. Lyon, et al. (2020). "Evolutionary Toxicology - An Informational Tool for Chemical Regulation?" Environmental Toxicology and Chemistry **39**(2): 257-268.
- Paini, A., J. A. Leonard, E. Joossens, et al. (2019). "Next generation physiologically based kinetic (NG-PBK) models in support of regulatory decision making." Computational Toxicology **9**: 61-72.
- Park, C. M., Y. M. Kim, K. H. Kim, et al. (2019). "Potential utility of graphene-based nano spinel ferrites as adsorbent and photocatalyst for removing organic/inorganic contaminants from aqueous solutions: A mini review." Chemosphere **221**: 392-402.
- Park, C. M., D. Wang, J. Han, et al. (2019). "Evaluation of the colloidal stability and adsorption performance of reduced graphene oxide–elemental silver/magnetite nanohybrids for selected toxic heavy metals in aqueous solutions." Applied Surface Science **471**: 8-17.
- Patlewicz, G., L. E. Lizarraga, D. Rua, et al. (2019). "Exploring current read-across applications and needs among selected U.S. Federal Agencies." Regul Toxicol Pharmacol **106**: 197-209.
- Patlewicz, G., A. M. Richard, A. J. Williams, et al. (2019). "A Chemical Category-Based Prioritization Approach for Selecting 75 Per- and Polyfluoroalkyl Substances (PFAS) for Tiered Toxicity and Toxicokinetic Testing." Environ Health Perspect **127**(1): 14501.
- Paul-Friedman, K., M. Martin, K. M. Crofton, et al. (2019). "Limited Chemical Structural Diversity Found to Modulate Thyroid Hormone Receptor in the Tox21 Chemical Library." Environ Health Perspect **127**(9): 97009.
- Paul Friedman, K., M. Gagne, L. H. Loo, et al. (2020). "Utility of In Vitro Bioactivity as a Lower Bound Estimate of In Vivo Adverse Effect Levels and in Risk-Based Prioritization." Toxicol Sci **173**(1): 202-225.
- Peloquin, D. M., E. J. Baumann and T. P. Luxton (2020). "Multi-method assessment of PVP-coated silver nanoparticles and artificial sweat mixtures." Chemosphere **249**: 126173.
- Perkins, E. J., R. Ashauer, L. Burgoon, et al. (2019). "Building and Applying Quantitative Adverse Outcome Pathway Models for Chemical Hazard and Risk Assessment." Environ Toxicol Chem **38**(9): 1850-1865.
- Petersen, E. J., M. Mortimer, R. M. Burgess, et al. (2019). "Strategies for robust and accurate experimental approaches to quantify nanomaterial bioaccumulation across a broad range of organisms." Environmental Science: Nano **6**(6): 1619-1656.
- Pettit, S. D., K. R. Jerome, D. Rouquié, et al. (2020). "'All In': a pragmatic framework for COVID-19 testing and action on a global scale." EMBO Mol Med **12**(6): e12634.
- Pham, L. L., S. M. Watford, P. Pradeep, et al. (2020). "Variability in in vivo studies: Defining the upper limit of performance for predictions of systemic effect levels." Computational Toxicology **15**: 100126.

Pleil, J. D., A. Hansel and J. Beauchamp (2019). "Advances in proton transfer reaction mass spectrometry (PTR-MS): applications in exhaled breath analysis, food science, and atmospheric chemistry." J Breath Res **13**(3): 039002.

Pleil, J. D., C. Lowe, A. Wallace, et al. (2021). "Using the U.S. EPA CompTox Chemicals Dashboard to interpret targeted and non-targeted GC-MS analyses from human breath and other biological media." Journal of Breath Research Published online.

Pleil, J. D. and A. Williams (2019). "Centralized resource for chemicals from the human volatilome in an interactive open-sourced database." J Breath Res **13**(4): 040201.

Pollesch, N. L., D. L. Villeneuve and J. M. O'Brien (2019). "Extracting and Benchmarking Emerging Adverse Outcome Pathway Knowledge." Toxicol Sci **168**(2): 349-364.

Potter, P. M., S. R. Al-Abed, D. Lay, et al. (2019). "VOC Emissions and Formation Mechanisms from Carbon Nanotube Composites during 3D Printing." Environ Sci Technol **53**(8): 4364-4370.

Potter, P. M., J. Navratilova, K. R. Rogers, et al. (2019). "Transformation of Silver Nanoparticle Consumer Products during Simulated Usage and Disposal." Environmental science. Nano **6**(2): 592-598.

Pradeep, P., L. M. Carlson, R. Judson, et al. (2019). "Integrating data gap filling techniques: A case study predicting TEFs for neurotoxicity TEQs to facilitate the hazard assessment of polychlorinated biphenyls." Regul Toxicol Pharmacol **101**: 12-23.

Pradeep, P., G. Patlewicz, R. Pearce, et al. (2020). "Using chemical structure information to develop predictive models for in vitro toxicokinetic parameters to inform high-throughput risk-assessment." Computational Toxicology **16**: 100136.

Pradeep, P., K. Paul Friedman and R. Judson (2020). "Structure-based QSAR models to predict repeat dose toxicity points of departure." Computational Toxicology **16**: 100139.

Price, P. (2020). "Interindividual Variation in Source-Specific Doses is a Determinant of Health Impacts of Combined Chemical Exposures." Risk Anal **40**(12): 2572-2583.

Price, P. and J. Leonard (2019). "A proposal for creating a taxonomy of chemical interactions using concepts from the aggregate exposure and adverse outcome pathways." Current Opinion in Toxicology **16**: 58-66.

Price, P. S., A. M. Jarabek and L. D. Burgoon (2020). "Organizing mechanism-related information on chemical interactions using a framework based on the aggregate exposure and adverse outcome pathways." Environment International **138**: 105673.

Radwan, I. M., A. Gitipour, P. M. Potter, et al. (2019). "Dissolution of silver nanoparticles in colloidal consumer products: effects of particle size and capping agent." Journal of Nanoparticle Research **21**(7): 155.

Rager, J. E., J. Bangma, C. Carberry, et al. (2020). "Review of the environmental prenatal exposome and its relationship to maternal and fetal health." Reprod Toxicol **98**: 1-12.

Raimondo, S., L. Sharpe, L. Oliver, et al. (2019). "A unified approach for protecting listed species and ecosystem services in isolated wetlands using community-level protection goals." Sci Total Environ **663**: 465-478.

Ramhoj, L., U. Hass, M. E. Gilbert, et al. (2020). "Evaluating thyroid hormone disruption: investigations of long-term neurodevelopmental effects in rats after perinatal exposure to perfluorohexane sulfonate (PFHxS)." Sci Rep **10**(1): 2672.

Richard, A. M., R. Huang, S. Waidyanatha, et al. (2020). "The Tox21 10K Compound Library: Collaborative Chemistry Advancing Toxicology." Chem Res Toxicol.

Rico, C. M., O. M. Abolade, D. Wagner, et al. (2020). "Wheat exposure to cerium oxide nanoparticles over three generations reveals transmissible changes in nutrition, biochemical pools, and response to soil N." Journal of Hazardous Materials **384**: 121364.

Ring, C. L., J. A. Arnot, D. H. Bennett, et al. (2019). "Consensus Modeling of Median Chemical Intake for the U.S. Population Based on Predictions of Exposure Pathways." Environ Sci Technol **53**(2): 719-732.

Rivetti, C., T. E. H. Allen, J. B. Brown, et al. (2020). "Vision of a near future: Bridging the human health–environment divide. Toward an integrated strategy to understand mechanisms across species for chemical safety assessment." Toxicology in Vitro **62**: 104692.

Rogers, K. R., T. E. Henson, J. Navratilova, et al. (2020). "In vitro intestinal toxicity of commercially available spray disinfectant products advertised to contain colloidal silver." Science of The Total Environment **728**: 138611.

Rooney, J., B. Chorley and J. C. Corton (2019). "A gene expression biomarker identifies factors that modulate sterol regulatory element binding protein." Computational Toxicology **10**: 63-77.

Rooney, J. P., B. Chorley, S. Hiemstra, et al. (2020). "Mining a human transcriptome database for chemical modulators of NRF2." PLoS One **15**(9): e0239367.

Rooney, J. P., K. Oshida, R. Kumar, et al. (2019). "Chemical Activation of the Constitutive Androstane Receptor Leads to Activation of Oxidant-Induced Nrf2." Toxicol Sci **167**(1): 172-189.

Rugani, B., D. Maia de Souza, B. P. Weidema, et al. (2019). "Towards integrating the ecosystem services cascade framework within the Life Cycle Assessment (LCA) cause-effect methodology." Science of The Total Environment **690**: 1284-1298.

Russell, M. C., S. R. Newton, K. M. McClure, et al. (2019). "Per- and polyfluoroalkyl substances in two different populations of northern cardinals." Chemosphere **222**: 295-304.

Ruttkies, C., E. L. Schymanski, N. Strehmel, et al. (2019). "Supporting non-target identification by adding hydrogen deuterium exchange MS/MS capabilities to MetFrag." Analytical and Bioanalytical Chemistry **411**(19): 4683-4700.

- Ruyle, B. J., C. P. Thackray, J. P. McCord, et al. (2021). "Reconstructing the Composition of Per- and Polyfluoroalkyl Substances in Contemporary Aqueous Film-Forming Foams." Environmental Science & Technology Letters **8**(1): 59-65.
- Sachana, M., A. Bal-Price, K. M. Crofton, et al. (2019). "International Regulatory and Scientific Effort for Improved Developmental Neurotoxicity Testing." Toxicol Sci **167**(1): 45-57.
- Sahle-Demessie, E., A. Aly Hassan and A. El Badawy (2019). "Bio-desalination of brackish and seawater using halophytic algae." Desalination **465**: 104-113.
- Saili, K. S., T. Antonijevic, T. J. Zurlinden, et al. (2020). "Molecular characterization of a toxicological tipping point during human stem cell differentiation." Reprod Toxicol **91**: 1-13.
- Saili, K. S., J. A. Franzosa, N. C. Baker, et al. (2019). "Systems Modeling of Developmental Vascular Toxicity." Curr Opin Toxicol **15**(1): 55-63.
- Salih, H. H. M., A. M. El Badawy, T. M. Tolaymat, et al. (2019). "Removal of Stabilized Silver Nanoparticles from Surface Water by Conventional Treatment Processes." Adv Nanopart **8**(2): 21-35.
- Saunders, L. J., P. N. Fitzsimmons, J. W. Nichols, et al. (2020). "In vitro-in vivo extrapolation of hepatic and gastrointestinal biotransformation rates of hydrophobic chemicals in rainbow trout." Aquat Toxicol **228**: 105629.
- Saunders, L. J., S. Fontanay, J. W. Nichols, et al. (2019). "Concentration dependence of in vitro biotransformation rates of hydrophobic organic sunscreen agents in rainbow trout S9 fractions: Implications for bioaccumulation assessment." Environ Toxicol Chem **38**(3): 548-560.
- Saunders, L. J., A. D. Hoffman, J. W. Nichols, et al. (2020). "Dietary Bioaccumulation and Biotransformation of Hydrophobic Organic Sunscreen Agents in Rainbow Trout." Environ Toxicol Chem **39**(3): 574-586.
- Sayre, R. R., J. F. Wambaugh and C. M. Grulke (2020). "Database of pharmacokinetic time-series data and parameters for 144 environmental chemicals." Sci Data **7**(1): 122.
- Schymanski, E. L., N. C. Baker, A. J. Williams, et al. (2019). "Connecting environmental exposure and neurodegeneration using cheminformatics and high resolution mass spectrometry: potential and challenges." Environmental Science: Processes & Impacts **21**(9): 1426-1445.
- Selano, J., V. Richardson, J. Washington, et al. (2019). "Characterization of non-radiolabeled Thyroxine (T(4)) uptake in cryopreserved rat hepatocyte suspensions: Pharmacokinetic implications for PFOA and PFOS chemical exposure." Toxicol In Vitro **58**: 230-238.
- Serrano, J., R. C. Kolanczyk, B. R. Blackwell, et al. (2020). "In vitro metabolism assessment of thiacloprid in rainbow trout and rat by LC-UV and high resolution-mass spectrometry." Xenobiotica: 1-39.
- Serrano, J., R. C. Kolanczyk, M. A. Tapper, et al. (2019). "Characterization and analysis of estrogenic cyclic phenone metabolites produced in vitro by rainbow trout liver slices using GC-MS, LC-MS and LC-TOF-MS." J Chromatogr B Analyt Technol Biomed Life Sci **1126-1127**: 121717.

Serrano, J., M. A. Tapper, R. C. Kolanczyk, et al. (2020). "Metabolism of cyclic phenones in rainbow trout in vitro assays." Xenobiotica **50**(2): 192-208.

Shafer, T. J., J. P. Brown, B. Lynch, et al. (2019). "Evaluation of Chemical Effects on Network Formation in Cortical Neurons Grown on Microelectrode Arrays." Toxicol Sci **169**(2): 436-455.

Sheffield, T. Y. and R. S. Judson (2019). "Ensemble QSAR Modeling to Predict Multispecies Fish Toxicity Lethal Concentrations and Points of Departure." Environ Sci Technol **53**(21): 12793-12802.

Singh, A., W. C. Hou, T. F. Lin, et al. (2019). "Roles of Silver-Chloride Complexations in Sunlight-Driven Formation of Silver Nanoparticles." Environ Sci Technol **53**(19): 11162-11169.

Singh, R. R., A. Chao, K. A. Phillips, et al. (2020). "Expanded coverage of non-targeted LC-HRMS using atmospheric pressure chemical ionization: a case study with ENTACT mixtures." Anal Bioanal Chem **412**(20): 4931-4939.

Sinnathamby, S., J. M. Minucci, D. L. Denton, et al. (2020). "A sensitivity analysis of pesticide concentrations in California Central Valley vernal pools." Environmental Pollution **257**: 113486.

Smith, R. L., E. C. D. Tan and G. J. Ruiz-Mercado (2019). "Applying Environmental Release Inventories and Indicators to the Evaluation of Chemical Manufacturing Processes in Early Stage Development." ACS Sustain Chem Eng **7**(12): 10937-10950.

Sobus, J. R., J. N. Grossman, A. Chao, et al. (2019). "Using prepared mixtures of ToxCast chemicals to evaluate non-targeted analysis (NTA) method performance." Anal Bioanal Chem **411**(4): 835-851.

Stadler, H. S., C. A. Peters, R. M. Sturm, et al. (2020). "Meeting report on the NIDDK/AUA Workshop on Congenital Anomalies of External Genitalia: challenges and opportunities for translational research." Journal of Pediatric Urology **16**(6): 791-804.

Stefaniak, A. B., L. N. Bowers, A. K. Knepp, et al. (2019). "Particle and vapor emissions from vat polymerization desktop-scale 3-dimensional printers." J Occup Environ Hyg **16**(8): 519-531.

Strickland, J., A. B. Daniel, D. Allen, et al. (2019). "Skin sensitization testing needs and data uses by US regulatory and research agencies." Arch Toxicol **93**(2): 273-291.

Surwade, P., C. Ghildyal, C. Weikel, et al. (2019). "Augmented antibacterial activity of ampicillin with silver nanoparticles against methicillin-resistant *Staphylococcus aureus* (MRSA)." The Journal of Antibiotics **72**(1): 50-53.

Swintek, J., M. Etterson, K. Flynn, et al. (2019). "Optimized temporal sampling designs of the Weibull growth curve with extensions to the von Bertalanffy model." Environmetrics **30**(6).

Tan, Y. M., M. Chan, A. Chukwudebe, et al. (2020). "PBPK model reporting template for chemical risk assessment applications." Regul Toxicol Pharmacol **115**: 104691.

Tapper, M. A., J. S. Denny, J. A. Serrano, et al. (2019). "Phenone, Hydroxybenzophenone, and Branched Phenone Estrogen Receptor Binding and Vitellogenin Agonism in Rainbow Trout *In Vitro* Models." Applied In Vitro Toxicology **5**(1): 62-74.

Tapper, M. A., R. C. Kolanczyk, C. LaLone, et al. (2020). "Conversion of Estrone to 17 β -Estradiol: A Potential Confounding Factor in Assessing Risks of Environmental Estrogens to Fish." Environmental Toxicology and Chemistry **39**(10): 2028-2040.

Tegenaw, A., G. A. Sorial, E. Sahle-Demessie, et al. (2019). "Characterization of colloid-size copper-based pesticide and its potential ecological implications." Environmental Pollution **253**: 278-287.

Tegenaw, A., G. A. Sorial, E. Sahle-Demessie, et al. (2020). "Role of water chemistry on stability, aggregation, and dissolution of uncoated and carbon-coated copper nanoparticles." Environmental Research **187**: 109700.

Thai, S. F., C. P. Jones, G. B. Nelson, et al. (2019). "Differential Effects of Nano TiO₂ and CeO₂ on Normal Human Lung Epithelial Cells In Vitro." J Nanosci Nanotechnol **19**(11): 6907-6923.

Thomas, R. S., T. Bahadori, T. J. Buckley, et al. (2019). "The Next Generation Blueprint of Computational Toxicology at the U.S. Environmental Protection Agency." Toxicol Sci **169**(2): 317-332.

Thornton, S. B., S. J. Boggins, D. M. Peloquin, et al. (2020). "Release and transformation of nanoparticle additives from surface coatings on pristine & weathered pressure treated lumber." Science of The Total Environment **737**: 139451.

Tornero-Velez, R., K. Isaacs, K. Dionisio, et al. (2020). "Data Mining Approaches for Assessing Chemical Coexposures Using Consumer Product Purchase Data." Risk Anal Published online.

Turley, A. E., K. K. Isaacs, B. A. Wetmore, et al. (2019). "Incorporating new approach methodologies in toxicity testing and exposure assessment for tiered risk assessment using the RISK21 approach: Case studies on food contact chemicals." Food Chem Toxicol **134**: 110819.

Ulrich, E. M., J. R. Sobus, C. M. Grulke, et al. (2019). "EPA's non-targeted analysis collaborative trial (ENTACT): genesis, design, and initial findings." Anal Bioanal Chem **411**(4): 853-866.

Urich, M. L., W. M. Henderson, A. H. MacLeod, et al. (2020). "Gonad metabolomics and blood biochemical analysis reveal differences associated with testicular oocytes in wild largemouth bass (*Micropterus salmoides*)." Comparative Biochemistry and Physiology Part B: Biochemistry and Molecular Biology **250**: 110491.

Vegosen, L. and T. M. Martin (2020). "An automated framework for compiling and integrating chemical hazard data." Clean Technologies and Environmental Policy **22**(2): 441-458.

Viant, M. R., T. M. D. Ebbels, R. D. Beger, et al. (2019). "Use cases, best practice and reporting standards for metabolomics in regulatory toxicology." Nature Communications **10**(1): 3041.

- Villeneuve, D. L., B. R. Blackwell, J. E. Cavallin, et al. (2020). "Case study in 21st century ecotoxicology: using in vitro aromatase inhibition data to predict short term in vivo responses in adult female fish." Environmental Toxicology and Chemistry Published online.
- Villeneuve, D. L., K. Coady, B. I. Escher, et al. (2019). "High-throughput screening and environmental risk assessment: State of the science and emerging applications." Environ Toxicol Chem **38**(1): 12-26.
- Wallace, A. R., C. Su and W. Sun (2019). "Adsorptive Removal of Fluoride from Water Using Nanomaterials of Ferrihydrite, Apatite, and Brucite: Batch and Column Studies." ENviornmental Engineering Science **36**(5): 634-642.
- Wambaugh, J. F., J. C. Bare, C. C. Carignan, et al. (2019). "New approach methodologies for exposure science." Current Opinion in Toxicology **15**: 76-92.
- Wambaugh, J. F., B. A. Wetmore, C. L. Ring, et al. (2019). "Assessing Toxicokinetic Uncertainty and Variability in Risk Prioritization." Toxicol Sci **172**(2): 235-251.
- Wang, D., N. B. Saleh, W. Sun, et al. (2019). "Next-Generation Multifunctional Carbon-Metal Nanohybrids for Energy and Environmental Applications." Environ Sci Technol **53**(13): 7265-7287.
- Wang, J., D. R. Hallinger, A. S. Murr, et al. (2019). "High-throughput screening and chemotype-enrichment analysis of ToxCast phase II chemicals evaluated for human sodium-iodide symporter (NIS) inhibition." Environ Int **126**: 377-386.
- Wang, R.-L., S. Edwards and C. Ives (2019). "Ontology-based semantic mapping of chemical toxicities." Toxicology **412**: 89-100.
- Wang, Y., Z. S. Welch, A. R. Ramirez, et al. (2019). "Effects of carbonaceous nanomaterials on soil-grown soybeans under combined heat and insect stresses." Environmental Chemistry **16**(6): 482-493.
- Washington, J. W., K. Rankin, E. L. Libelo, et al. (2019). "Determining global background soil PFAS loads and the fluorotelomer-based polymer degradation rates that can account for these loads." Sci Total Environ **651**(Pt 2): 2444-2449.
- Washington, J. W., C. G. Rosal, J. P. McCord, et al. (2020). "Nontargeted mass-spectral detection of chloroperfluoropolyether carboxylates in New Jersey soils." Science **368**(6495): 1103-1107.
- Washington, J. W., C. G. Rosal, E. M. Ulrich, et al. (2019). "Use of carbon isotopic ratios in nontargeted analysis to screen for anthropogenic compounds in complex environmental matrices." J Chromatogr A **1583**: 73-79.
- Washington, J. W., C. G. Rosal, E. M. Ulrich, et al. (2019). "Use of carbon isotopic ratios in nontargeted analysis to screen for anthropogenic compounds in complex environmental matrices." Journal of Chromatography A **1583**: 73-79.
- Watford, S., S. Edwards, M. Angrish, et al. (2019). "Progress in data interoperability to support computational toxicology and chemical safety evaluation." Toxicol Appl Pharmacol **380**: 114707.

- Watford, S., L. Ly Pham, J. Wignall, et al. (2019). "ToxRefDB version 2.0: Improved utility for predictive and retrospective toxicology analyses." Reprod Toxicol **89**: 145-158.
- Webster, F., M. Gagné, G. Patlewicz, et al. (2019). "Predicting estrogen receptor activation by a group of substituted phenols: An integrated approach to testing and assessment case study." Regul Toxicol Pharmacol **106**: 278-291.
- Wegner, S. H., C. L. Pinto, C. L. Ring, et al. (2020). "High-throughput screening tools facilitate calculation of a combined exposure-bioactivity index for chemicals with endocrine activity." Environment International **137**: 105470.
- Wehmas, L. C., S. D. Hester and C. E. Wood (2020). "Direct formalin fixation induces widespread transcriptomic effects in archival tissue samples." Scientific Reports **10**(1): 14497.
- Wei, Z., S. Sakamuru, L. Zhang, et al. (2019). "Identification and Profiling of Environmental Chemicals That Inhibit the TGF β /SMAD Signaling Pathway." Chem Res Toxicol **32**(12): 2433-2444.
- Weitekamp, C. A., D. Phelps, A. Swank, et al. (2019). "Triclosan-selected host-associated microbiota perform xenobiotic biotransformations in larval zebrafish." Toxicol Sci.
- Wetmore, B. A., R. A. Clewell, B. Cholewa, et al. (2019). "Assessing bioactivity-exposure profiles of fruit and vegetable extracts in the BioMAP profiling system." Toxicol In Vitro **54**: 41-57.
- Willis, C., J. Nyffeler and J. Harrill (2020). "Phenotypic Profiling of Reference Chemicals across Biologically Diverse Cell Types Using the Cell Painting Assay." SLAS Discov **25**(7): 755-769.
- Wood, M. D., K. Plourde, S. Larkin, et al. (2020). "Advances on a Decision Analytic Approach to Exposure-Based Chemical Prioritization." Risk Anal **40**(1): 83-96.
- Xu, N., Z. Li, X. Huangfu, et al. (2020). "Facilitated transport of nTiO(2)-kaolin aggregates by bacteria and phosphate in water-saturated quartz sand." Sci Total Environ **713**: 136589.
- Yang, D., J. Han, D. R. Hall, et al. (2020). "Nontarget Screening of Per- and Polyfluoroalkyl Substances Binding to Human Liver Fatty Acid Binding Protein." Environ Sci Technol **54**(9): 5676-5686.
- Yang, J., M. Chen, H. Yang, et al. (2020). "Surface heterogeneity mediated transport of hydrochar nanoparticles in heterogeneous porous media." Environ Sci Pollut Res Int **27**(26): 32842-32855.
- Yi, J., M. G. Duling, L. N. Bowers, et al. (2019). "Particle and organic vapor emissions from children's 3-D pen and 3-D printer toys." Inhal Toxicol **31**(13-14): 432-445.
- Yuan, C., C. Tebes-Stevens and E. J. Weber (2020). "Reaction Library to Predict Direct Photochemical Transformation Products of Environmental Organic Contaminants in Sunlit Aquatic Systems." Environ Sci Technol **54**(12): 7271-7279.
- Yun, Y. E., R. Tornero-Velez, S. T. Purucker, et al. (2021). "Evaluation of quantitative structure property relationship algorithms for predicting plasma protein binding in humans." Computational Toxicology **17**: 100142.

Zepp, R., E. Ruggiero, B. Acrey, et al. (2020). "Fragmentation of polymer nanocomposites: modulation by dry and wet weathering, fractionation, and nanomaterial filler." Environmental Science: Nano **7**(6): 1742-1758.

Zhang, K., J. M. Suh, J.-W. Choi, et al. (2019). "Recent Advances in the Nanocatalyst-Assisted NaBH₄ Reduction of Nitroaromatics in Water." ACS Omega **4**(1): 483-495.

Zucker, R. M., J. Ortenzio, L. L. Degn, et al. (2020). "Detection of large extracellular silver nanoparticle rings observed during mitosis using darkfield microscopy." PLoS One **15**(12): e0240268.

Zucker, R. M., J. Ortenzio, L. L. Degn, et al. (2019). "Biophysical comparison of four silver nanoparticles coatings using microscopy, hyperspectral imaging and flow cytometry." PLoS One **14**(7): e0219078.

Zurlinden, T. J., K. S. Saili, N. C. Baker, et al. (2020). "A cross-platform approach to characterize and screen potential neurovascular unit toxicants." Reproductive Toxicology **96**: 300-315.

Zurlinden, T. J., K. S. Saili, N. Rush, et al. (2020). "Profiling the ToxCast Library With a Pluripotent Human (H9) Stem Cell Line-Based Biomarker Assay for Developmental Toxicity." Toxicol Sci **174**(2): 189-209.