Joshua Harrill, Cellular and Molecular Toxicologist, in EPA's National Center for Computational Toxicology

Mailing Address

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Area of Expertise: Dr. Harrill works as a cellular and molecular toxicologist with EPA's National Center for Computational Toxicology. Dr. Harrill's expertise is *in vitro* toxicology, specifically the application of next generation sequencing, high content imaging and other complementary technologies for chemical hazard screening, characterization and prioritization. Dr. Harrill's graduate and postdoctoral training focused on applying to genomic technologies to evaluate mechanisms of pesticide neurotoxicity and development of in vitro, high-/medium-throughput methods for developmental neurotoxicity screening. Dr. Harrill then served as a principal investigator researching the role of ligand-activated nuclear receptors in tissue development and liver carcinogenesis as well as developing novel *in vitro* models for assessing chemical effects on hepatic progenitor cells. Dr. Harrill also has experience from the private sector in conducting human health risk assessments using USEPA and state-level guidance as well as devising and managing rapid-phase environmental sampling, analysis and data interpretation programs during events involving the release of potentially hazardous chemicals.

Select Publications:

Harrill J.A., Layko D., Nyska A., Hukkanen R.R., Manno R.A., Grassetti A., Lawson M., Martin G., Budinsky R.A., Rowlands, J.C., Thomas, R.S. (2015) Aryl hydrocarbon receptor knockout rats are insensitive to the pathological effects of repeated oral exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin. Journal of Applied Toxicology. 36(6):802-14. Exit

Harrill J.A., Wauthier, E., Parks, B., Reid, L.M., Thomas, R.S. (2015). Lineage Dependent Effects of Aryl Hydrocarbon Receptor Agonists Contribute to Liver Tumorigenesis. Hepatology. 61(2):548-560. Exit

Harrill J.A., Chen H., Streifel K.M., Yang D., Mundy W.R., Lein P.J. (2015). Ontogeny of biochemical, morphological and functional parameters of synaptogenesis in primary cultures of rat hippocampal and cortical neurons. Molecular Brain 8(10):1-15. Exit

View more research publications by Joshua Harrill.

Education:

- B.S., North Carolina State University, Raleigh, NC; Biochemistry, 2002
- Ph.D., The University of North Carolina, Chapel Hill; Toxicology, 2008
- Postdoctoral Fellowship, U.S. EPA, National Health and Environmental Effects Research Laboratory, Integrated Systems Toxicology Division; 2008-2011

Professional Experience:

- Best Post-Doctoral Research Publication, Society of Toxicology; 2011
- Post-Doctoral Research Award, Society of Toxicology, In vitro and Alternative Methods Specialty Section; 2011
- Best Poster Presentation Award, Cambridge Healthtech Institute 7th Annual High Content Analysis Conference, 2010

Additional Publications: